FINAL ENGINEERING PLANS

FOR

Wild Fork

14680 LAGRANGE ROAD
ORLAND PARK, ILLINOIS

PROJECT TEAM

OWNER/DEVELOPER

TM Crowley & Associates
11312 Hazel Dell Parkway
Carmel, Indiana 46280
317 705 8800
Contact: Andrew Terrell

ENGINEER

V3 Companies, Ltd.
7325 Janes Avenue
Woodridge, Illinois 60517
630 724 9200
Project Manager: Bradley R. Prischman, P.E.
bprischman@v3co.com
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randersen@v3co.com

ARCHITECT

Archideas
311 West Superior Street Suite 410
Chicago, Illinois 60654
312 951 1106
Contact: Jeffrey Miller

P.I.N. NO. 27-09-401-019

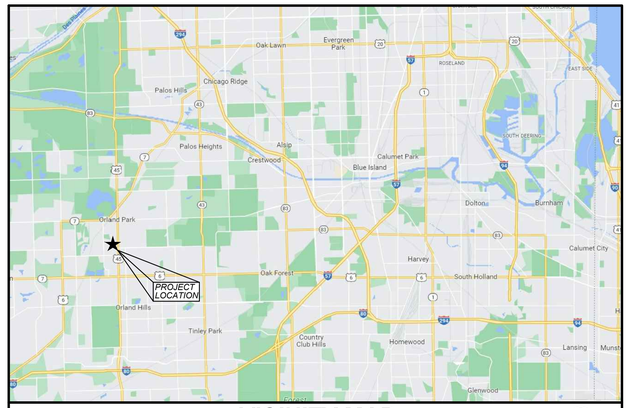
BENCHMARKS

SOURCE: TRIMBLE VRS
PROJECT ORIGIN AT
LATITUDE: 41-37-11.34484 N
LONGITUDE: 87-51-16.61610 W
ELLIPSOIDAL HEIGHT: 612.741 SFT
GROUND SCALE FACTOR: 1.0000346587

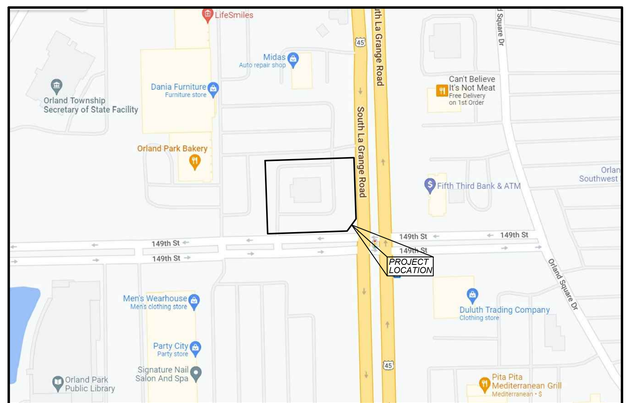
SITE:

STATION DESIGNATION: SBM#1
ESTABLISHED BY: V3 COMPANIES DATE: 03-16-22
ELEVATION: 720.48 (MEASURED) DATUM: NAVD88
DESCRIPTION: EAST BOLT ON TRAFFIC LIGHT POLE AT NORTHWEST CORNER OF LAGRANGE ROAD AND 149TH STREET INTERSECTION.

STATION DESIGNATION: SBM#2
ESTABLISHED BY: V3 COMPANIES DATE: 03-16-22
ELEVATION: 719.91 (MEASURED) DATUM: NAVD88
DESCRIPTION: (V3 CP 102) SET CUT CROSS ON TOP OF CURB ISLAND JUST NORTH OF THE DRIVEWAY TO SITE FROM LAGRANGE ROAD, NORTH OF SITE.



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE

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CIVIL ENGINEERING PLANS

SUPPORTING DOCUMENTS

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L100	TREE SURVEY
L200	LANDSCAPE PLAN
L201	IRRIGATION PLAN
L300	LANDSCAPE NOTES AND DETAILS
P1.0	PHOTOMETRIC PLAN

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PROFESSIONAL ENGINEER'S CERTIFICATION

I, RANDALL H. ANDERSEN, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF TM CROWLEY & ASSOCIATES BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS _____DAY OF_____, A.D., 2022.

ILLINOIS LICENSED PROFESSIONAL ENGINEER 062-061606
MY LICENSE EXPIRES ON NOVEMBER 30, 2023

ILLINOIS LICENSED DESIGN FIRM NO. 184-000902

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

TITLE SHEET

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A
V3

DRAWING NO.
C0.0

GENERAL NOTES

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

   V3 COMPANIES, LTD.
   7325 JANES AVENUE
   WOODRIDGE, IL 60517

   COPIES OF THE SURVEY ARE AVAILABLE FROM THE SURVEYOR. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

2. ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.

3. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

4. ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.

5. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS V3 COMPANIES LTD., THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, HIS AGENTS, THE ENGINEER, HIS EMPLOYEES AND AGENTS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

8. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:

   a. "VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE AND APPLICABLE VILLAGE ORDINANCES."

   b. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY IDOT, LATEST EDITION.

   c. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION.

   d. ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE IEPA. LATEST EDITION.

   e. THE LATEST EDITIONS OF THE MUNICIPAL CODE AND STANDARDS OF THE VILLAGE OF ORLAND PARK.

   f. THE NATIONAL ELECTRIC CODE.

   g. THE ILLINOIS ACCESSIBILITY CODE.

   h. CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) REQUIREMENTS AS PUBLISHED BY THE IEPA. TESTING OF SOILS BEING EXPORTED FROM THE SITE AND APPROPRIATE DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

   IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITE WORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

9. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AND FOR ANY NEW CONSTRUCTION REQUIRING INSPECTION.

10. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND SHALL BE PROTECTED PER IDOT STANDARDS. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES IDENTIFIED TO REMAIN SHALL BE PROTECTED FROM DAMAGE INCLUDING TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.

11. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT ACCUMULATION OF MUD OR SOIL ON PUBLIC THOROUGHFARES. AT THE END OF EACH DAY AND AS OFTEN AS OTHERWISE NECESSARY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ONTO PUBLIC STREETS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.

12. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH THE VILLAGE OF ORLAND PARK MUNICIPAL CODE AND IDOT REQUIREMENTS.

13. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR PARKWAY OVER A HOLIDAY, WEEKEND OR AFTER 3:00 P.M. ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.

14. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.

15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF THE BASE CONTRACT.

16. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.

17. FOR REGULATED UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT THE JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS, "J.U.L.I.E." AT 1-800-892-0123. LOCAL GOVERNMENT AGENCIES SHOULD BE CONTACTED BY THE CONTRACTOR FOR LOCATION OF ALL NONREGULATED UTILITY LOCATIONS. CALL FOR LOCATES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.

18. BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.

19. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.

21. ALL CURB RADII REFER TO BACK OF CURB.

22. ANY AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN CONFORMANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE INCIDENTAL TO THE CONTRACT.

23. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE MUNICIPALITY OR IDOT STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.

24. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, DRIVES, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.

25. CAD FILES ARE AVAILABLE FOR CONSTRUCTION LAYOUT UPON REQUEST.

26. BACKFILL SHALL BE PLACED NEXT TO THE CURB AS SOON AS PERMISSIBLE AFTER CONSTRUCTION TO PREVENT SCOURING AND UNDERCUTTING BY STORM WATER RUNOFF.

27. BUTT JOINTS SHALL BE PROVIDED WHEREVER NEW PAVEMENT ABUTS EXISTING PAVEMENT. ALL BUTT JOINTS SHALL BE CONSTRUCTED BY MILLING AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE BITUMINOUS SURFACE COURSE.

28. WHEN AN EXISTING DRAINAGE ROUTE, EITHER A STORM SEWER OR WATERWAY, IS INTERRUPTED DUE TO CONSTRUCTION, THE DRAINAGE ROUTE SHALL BE REESTABLISHED TO ORIGINAL CONDITIONS BY THE END OF THE SAME WORK DAY. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

29. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

30. FINAL ADJUSTMENT OF FIRE HYDRANTS, VALVE VAULTS AND MANHOLES TO FINISHED GRADE ARE INCIDENTAL TO THEIR COST.

31. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT ARE TO BE ADJUSTED OR RECONSTRUCTED BY THE CONTRACTOR TO THE UTILITY OWNER'S SATISFACTION. ADJUSTMENTS OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

32. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.

33. PROVIDE TRENCH BACKFILL IN ACCORDANCE WITH THE DETAILS OF THE PLANS FOR ALL UTILITY LINES (OR AS OTHERWISE NOTED ON PLANS). BACKFILL SHALL BE PLACED AND COMPACTED PER THE MUNICIPALITY AND IDOT SPECIFICATIONS. COST OF BACKFILL IS TO BE CONSIDERED INCIDENTAL TO THE UTILITY WORK.

34. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

35. PRIOR TO DEMOBILIZATION, ALL WORK SHALL BE CLEANED AND INSPECTED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

36. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

37. BAND-SEAL CONNECTORS OR EQUIVALENT SHALL BE USED TO JOIN PIPES OF DISSIMILAR MATERIAL.

38. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL CONSTRUCTION IN CONFORMANCE WITH ALL MUNICIPAL AND CLIENT REQUIREMENTS FOR USE IN PREPARING RECORD DRAWINGS.

39. THE SUBCONTRACTOR SHALL INSTALL A 2"x4"x6' POST ADJACENT TO THE TERMINUS OF UTILITY MAINS AND SERVICE LINES. POSTS SHALL BE MARKED IN ACCORDANCE WITH THE VILLAGE STANDARDS.

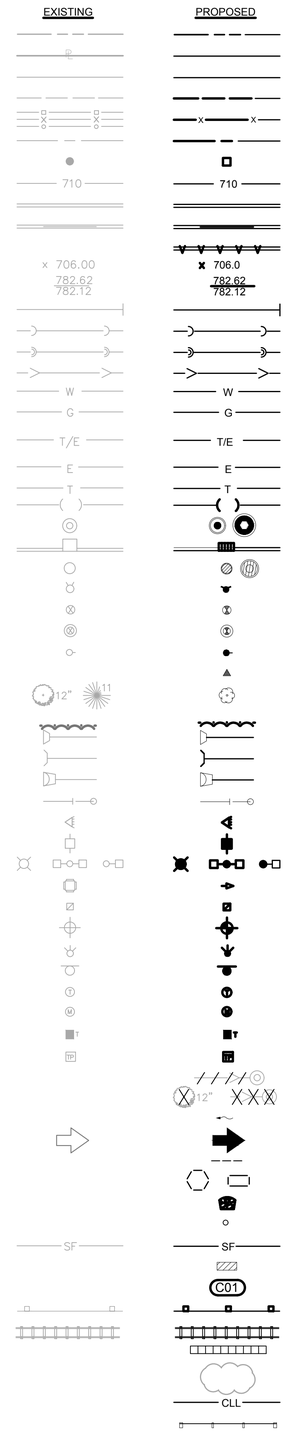
40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION. ANY DEWATERING REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT.

41. COPIES OF SOILS INVESTIGATION REPORTS MAY BE OBTAINED FROM THE OWNER. ANY BRACING, SHEETING OR SPECIAL CONSTRUCTION METHODS REQUIRED IN ORDER TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. ANY ADDITIONAL SOILS DATA NEEDED TO CONFIRM THE CONTRACTOR'S OPINIONS OF THE SUBSOIL CONDITIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN AUTHORIZATION TO ACCESS THE SITE TO CONDUCT A SUPPLEMENTAL SOILS INVESTIGATION.

42. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY AS DETERMINED BY THE ENGINEER. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE SUBCONTRACTOR AND SUBMITTED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD TILE REPAIRS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

43. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

LEGEND



DESCRIPTION
RIGHT-OF-WAY LINE
PROPERTY LINE (EXTERIOR)
LOT LINE (INTERIOR)
EASEMENT LINE
FENCE LINE
CENTERLINE
PROPERTY CORNER
CONTOUR
CURB & GUTTER
DEPRESSED CURB & GUTTER
REVERSE PITCHED CURB
SPOT ELEVATION
TOP OF CURB ELEVATION
EDGE OF PAVEMENT ELEVATION
UTILITY STUB
SANITARY SEWER
SANITARY FORCE MAIN
STORM SEWER
WATER MAIN
GAS MAIN
UNDERGROUND TELEPHONE & ELECTRIC DUCT BANK
BURIED CABLE-ELECTRIC
BURIED CABLE-TELEPHONE
ATLAS LOCATED UTILITY
UTILITY STRUCTURE WITH CLOSED LID
CURB INLET
DRAINAGE STRUCTURE WITH OPEN LID
FIRE HYDRANT
VALVE IN VALVE BOX
GATE VALVE IN VALVE VAULT
POST INDICATOR VALVE
THRUST BLOCK
TREE
TREE LINE
CONCRETE HEADWALL
SUBMERGED HEADWALL
FLARED END SECTION (F.E.S.)
GUY WIRES
FLOOD LIGHT
UTILITY POLE
LIGHT STANDARD
TRAFFIC SIGNAL POLE
HAND HOLE
SOIL BORING
IRRIGATION HEADS
SIGN
TELEPHONE MANHOLE
MONITORING WELL
TELEPHONE PEDESTAL
TRANSFORMER PAD
UTILITY TO BE ABANDONED
FEATURE TO BE REMOVED
STORMWATER FLOW DIRECTION
STORMWATER OVERFLOW ROUTE
DITCH CHECK
INLET FILTER BASKET
RIP RAP
BOLLARD
SILT FENCE
WATER MAIN PROTECTION
UTILITY CROSSING LABEL
GUARDRAIL
RAILROAD TRACKS
RETAINING WALL
REVISION DELINEATION
CONSTRUCTION LIMIT LINE
TREE PROTECTION FENCE

ABBREVIATIONS

A	ARC LENGTH
B-B	BACK TO BACK OF CURB
B/C	BACK OF CURB
BLDG	BUILDING
BM	BENCHMARK
B/P	BOTTOM OF PIPE
BV/VV	BUTTERFLY VALVE IN VALVE VAULT
C & G	CURB AND GUTTER
CB	CATCH BASIN
℄	CENTERLINE
CL	CLOSED LID
CO	CLEAN OUT
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DIWM	DUCTILE IRON WATER MAIN
DWG	DRAWING
E	EAST OR ELECTRIC OR EDGE
EJ	EXPANSION JOINT
ELEV	ELEVATION
E/P	EDGE OF PAVEMENT
EX.	EXISTING
F & CL	FRAME & CLOSED LID
F & G	FRAME & GRATE
F & OL	FRAME & OPEN LID
FES	FLARED END SECTION
F-F	FACE TO FACE OF CURB
FF	FINISHED FLOOR
F/G	FINISHED GRADE
FH	FIRE HYDRANT
F/L	FLOW LINE
G	GAS LINE
GV/VB	GATE VALVE IN VALVE BOX
GV/VV	GATE VALVE IN VALVE VAULT
HDCP	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HOR	HORIZONTAL
HP	HIGH POINT
HWL	HIGH WATER LEVEL
IE	INVERT ELEVATION
IN	INLET
LF	LINEAL FEET
LP	LOW POINT OR LIGHT POLE
L	LEFT
ME	MATCH EXISTING
MH	MANHOLE
MW	MONITORING WELL
N	NORTH
NIC	NOT IN CONTRACT / NOT INCLUDED
NWL	NORMAL WATER LEVEL
OC	ON CENTER
OL	OPEN LID
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POINT OF VERTICAL CURVATURE OR POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS OR RIGHT
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
S	SLOPE OR SOUTH
SAN	SANITARY
SF	SILTATION FENCE
SFM	SANITARY FORCE MAIN
SHT	SHEET
SHW	SUBMERGED HEADWALL
SMH	SANITARY MANHOLE
STA	STATION
ST	STORM STRUCTURE OR STORM SEWER
STMH	STORM MANHOLE
T	TANGENT LENGTH OR TELEPHONE
T/C	TOP OF CURB
T/P	TOP OF PIPE
T/W	TOP OF WALL
TY	TYPE
TYP	TYPICAL
UP	UTILITY POLE
VC	VERTICAL CURVE
VERT	VERTICAL
VCP	VITRIFIED CLAY PIPE
W	WEST
WM	WATER MAIN

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

GENERAL NOTES. LEGEND, AND ABBREVIATIONS

Wild Fork™
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TMGA

DRAWING NO.
C1.0

SPECIFICATIONS

EARTHWORK

1. THE GRADING OPERATIONS ARE TO BE INSPECTED BY A THIRD PARTY SOILS ENGINEER. THE CONTRACTOR'S REPRESENTATIVE MUST BE NOTIFIED PRIOR TO ANY UNSUITABLE SOIL REMOVAL AND MUST APPROVE, IN WRITING, ANY REMEDIATION. BOTH THE CONTRACTOR AND SOILS ENGINEER MUST BE PRESENT DURING REMEDIATION.

2. THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADE. A MINIMUM OF 6 INCHES OF TOPSOIL IS TO BE PLACED BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED, UNLESS OTHERWISE NOTED. AREAS IN DETENTION FACILITIES NOTED TO BE ESTABLISHED WITH NATIVE VEGETATION SHALL REQUIRE A MINIMUM OF 12 INCHES OF TOPSOIL. REFER TO PLANTING PLANS TO VERIFY TOPSOIL THICKNESS REQUIREMENTS.

3. THE SURFACE VEGETATION, TOPSOIL, TRANSITIONAL MATERIAL, AND ANY OBVIOUSLY SOFT UNDERLYING SOIL SHALL BE STRIPPED FROM ALL AREAS TO RECEIVE STRUCTURAL FILL. IF THE UNDERLYING SUBGRADE IS FOUND TO BE UNSUITABLE FOR PROPER COMPACTION, CONTRACTOR TO CONSULT WITH SOILS ENGINEER PRIOR TO REMEDIATION.

4. EMBANKMENT MATERIAL WITHIN ROADWAY, DRIVEWAY, BUILDING AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D1557 (MODIFIED PROCTOR METHOD), OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER, THE AUTHORITY HAVING JURISDICTION, AND THE CONTRACTOR.

5. ALL PAVEMENT SUBGRADE SHALL MEET THE REQUIREMENTS DETERMINED BY THE SOILS ENGINEER AND DOCUMENTED IN THE GEOTECHNICAL REPORT. IF AREAS OF PAVEMENT SUBGRADE ARE ENCOUNTERED WHICH DO NOT MEET THESE REQUIREMENTS, SUBGRADE REPLACEMENT OR PAVEMENT DESIGN REVISIONS SHALL BE PROVIDED WHICH ARE ADEQUATE TO OBTAIN EQUIVALENT PAVEMENT STRENGTH AS DETERMINED BY THE ENGINEER, SOILS ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.

6. COMPLETED GRADING (FINISHED FINE GRADE) FOR PROPOSED PAVEMENT SUBGRADE AREAS, BUILDING PADS, AND OPEN SPACE AREAS SHALL BE WITHIN A 0.1' TOLERANCE OF DESIGN SUBGRADE.

7. THE SUBGRADE FOR PROPOSED STREET AND PAVEMENT AREAS SHALL BE PROOF-ROLLED BY THE SUBCONTRACTOR IN THE PRESENCE OF THE JURISDICTIONAL INSPECTOR, CONTRACTOR, AND SOILS ENGINEER.

8. BORROW PIT LOCATION(S) SHALL BE APPROVED BY THE OWNER, ENGINEER, AND GEOTECHNICAL ENGINEER.

SANITARY SEWER

1. SANITARY SEWERS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:

   A. POLYVINYL CHLORIDE PLASTIC SEWER PIPE (PVC) CONFORMING TO ASTM 3034 WITH AN SDR OF 26 LESS THAN 20 FOOT DEPTH AT FINAL GRADE FOR SIZES 6" THROUGH 12" INSIDE DIAMETER AND AWWA C905 FOR SIZES 14" THROUGH 36" DIAMETER WITH ELASTOMETRIC GASKET JOINTS CONFORMING TO ASTM D3212.

   B. DUCTILE IRON PIPE, MINIMUM THICKNESS CLASS 52, CONFORMING TO ANSI A21.51 (AWWA C151) WITH JOINTS CONFORMING TO ANSI 21-11 (AWWA C-111).

   C. REINFORCED CONCRETE PIPE (RCP), CIRCULAR REINFORCEMENT, MINIMUM CLASS 3, ASTM C76 WITH EPOXY LINING, 18" DIAMETER AND LARGER WITH ASTM C443 GASKETED JOINTS.

   D. POLYVINYL CHLORIDE MOLECULARY ORIENTED PRESSURE PIPE (PVC0). ASTM F1483, AWWA C909 CLASS 150 FOR SIZES 6" THROUGH 12" I.D. AT 20 FEET OR GREATER DEPTH WITH ASTM F477 GASKETS AND JOINTS CONFORMING TO ASTM D-3139.

   E. HIGH DENSITY POLYETHULENE PIPE (HDPE) FOR FORCE MAIN ONLY CONFORMING TO AWWA C906.

2. SANITARY CASTINGS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:

   A. MANHOLE FRAME AND COVER. MANHOLE FRAME AND COVER - 7" EAST JORDAN IRON WORKS, INC. #1022Z1 WITH 1020A HD GS LID EMBOSSED WITH "SANITARY SEWER" AND "VILLAGE OF ORLAND PARK," AS SHOWN ON SANITARY MANHOLE FRAME AND COVER - STANDARD DETAIL NO. SS-04.

   B. PICK HOLE. ALL LIDS SHALL BE CASE WITH A CONCEALED PICK HOLE.

   C. WATER TIGHTNESS. WHERE NECESSARY TO PREVENT ENTRY OF OVERLAND FLOW, A WATER TIGHT FRAME AND SELF-SEALING LID SHALL BE USED, SEVEN INCHES EAST JORDAN IRON WORKS, INC. #1022Z1 PT4 (4 BOLT LOCK DOWN) FRAME AND 1020A HD GS LID DETAIL NO. SS-04 OR AS REQUIRED BY THE DIRECTOR OF ENGINEERING.

3. ALL SANITARY SEWER SHALL BE TESTED FOR LEAKAGE AND DEFLECTION IN ACCORDANCE WITH SECTION 31-1.12 AND 31-1.13 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

4. ALL SANITARY MANHOLES SHALL BE TESTED FOR WATER TIGHTNESS IN ACCORDANCE WITH ASTM C969 OR ATSM C1244.

5. CONTRACTOR SHALL VERIFY THAT THE TESTING METHODS DESIGNATED HEREIN ARE COMPLIANT WITH THE VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-408.L . IF THE LOCAL JURISDICTION HAS MORE STRINGENT TESTING REQUIREMENTS THE CONTRACTOR SHALL ADHERE TO THE MORE STRINGENT REQUIREMENTS. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.

6. ALL MATING SURFACES OF CONCRETE ADJUSTMENT RISER(S), STRUCTURE SECTIONS, AND FRAMES SHALL BE SEALED WITH AN EXTERNAL SEAL MASTIC SEALANT. NO MASTIC SEALANT, CONCRETE MORTAR OR EPOXY MORTAR SHALL BE ALLOWED AS A SEALANT FOR ADJUSTMENT RISERS, STRUCTURE SECTIONS OR FRAMES. INFI-SHIELD UNI-BAND PROVIDED BY SEALING SYSTEMS, INC. AND WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM BY CCI PIPING SYSTEMS OR EQUIVALENT, AS DETERMINED BY THE VILLAGE OF ORLAND PARK, ARE ACCEPTABLE EXTERNAL SEAL PRODUCTS.

WATERMAIN DISTRIBUTION SYSTEM

1. WATER MAIN SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIAL AS SPECIFIED ON THE PLANS COMPLIANT WITH VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE 6-410.C:

   A. DUCTILE IRON PIPE, CONFORMING TO ANSI A21.51, AWWA C-151, CLASS 52 (THICKNESS CONFORMING TO ANSI A21.50 (AWWA C150, MINIMUM) WITH CEMENT LINING CONFORMING TO ANSI A21.4, AWWA C-104 AND PUSH-ON JOINTS CONFORMING TO ANSI A21.11, AWWA C-111. FITTINGS SHALL COMPLY WITH ANSI A21.10, AWWA C110. ALL DUCTILE IRON PIPE SHALL BE WRAPPED IN POLYETHYLENE IN ACCORDANCE WITH AWWA C105.

   B. WATER SERVICE LINES SHALL BE CONSTRUCTED OF CLASS K COPPER.

2. MINIMUM COVER OVER WATER MAIN SHALL BE 5' - 6" FROM FINISHED GRADE TO TOP OF PIPE.

3. VALVE VAULTS SHALL BE USED AT ALL VALVE LOCATIONS WHERE WATER MAIN IS 8" DIAMETER OR LARGER. VAULTS SHALL BE PRECAST CONCRETE STRUCTURES, WITH APPROPRIATE FRAME AND LIDS (SEE CONSTRUCTION DETAIL SHEETS). LIDS SHALL BE IMPRINTED "WATER".

4. THRUST BLOCKING OR RESTRAINED JOINTS SHALL BE INSTALLED ON WATER MAINS AT ALL BENDS, TEES, ELBOWS, ETC. AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. COST OF SAME SHALL BE INCIDENTAL TO THE UNIT PRICE FOR PIPE INSTALLED.

5. WATER MAIN FITTINGS (BENDS, ELBOWS, TEES, INCREASES, REDUCERS, ETC.) MAY OR MAY NOT BE SPECIFICALLY REFERENCED ON THE CONSTRUCTION PLANS. THEY ARE TO BE CONSIDERED AS INCIDENTAL AND INCLUDED IN THE LINEAL FOOTAGE COST OF THE WATER MAIN.

6. ALL WATER LINES ARE TO BE PRESSURE TESTED AND CHLORINATED PER THE REQUIREMENTS OF THE MUNICIPALITY AND THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

7. FOR 8" AND SMALLER DIAMETER VALVES, VALVE VAULTS SHALL HAVE A 60" INSIDE DIAMETER; FOR PRESSURE CONNECTIONS AND VALVES 10" AND LARGER IN DIAMETER, VALVE VAULTS SHALL HAVE A MINIMUM 72" INSIDE DIAMETER.

STORM SEWER

1. STORM SEWERS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS AS SPECIFIED IN THE VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-409.F AND ON THE PLANS:

   A. REINFORCED CONCRETE PIPE (RCP) (12" DIAMETER OR LARGER) IN CONFORMANCE WITH IDOT STANDARD SPECIFICATIONS DETERMINATION FOR PIPE CLASS, AND CONFORMING TO ASTM C76, MINIMUM CLASS 3, WALL B. ALL STORM SEWER SHALL HAVE "O" RING JOINTS CONFORMING TO ASTM C-443, UNLESS OTHERWISE NOTED.

   B. POLYVINYL CHLORIDE PLASTIC SEWER PIPE (PVC) (4", 6", AND 8") CONFORMING TO ASTM D2729, SDR35 WITH ASTM D3212 PUSH ON TYPE JOINTS, EXCEPT UNDERDRAIN PIPE WHICH SHALL HAVE SOLVENT WELDED JOINTS.

   C. HIGH DENSITY POLYETHYLENE PIPE, HDPE, CONFORMING TO ASTM D3350, F2648, ASTM F477 WITH JOINTS CONFORMING TO ASTM F2306

   D. DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 (AWWA C151) WITH JOINTS CONFORMING TO ANSI 21-11 (AWWA C-111).

2. STORM SEWER STRUCTURES SHALL BE PRECAST OF THE TYPE AND DIAMETER AS SPECIFIED IN THE PLANS WITH APPROPRIATE FRAME AND LIDS (SEE CONSTRUCTION DETAIL). LIDS SHALL BE IMPRINTED "STORM".

STRUCTURES SHALL BE COMPLIANT WITH THE VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE SECTION 6-409.F.6

   A. MANHOLE FRAME AND COVER EAST JORDAN IRON WORKS, INC. #1022Z3, 1020A HD.

   B. MANHOLE STEPS EAST JORDAN IRON WORKS, INC. #8518

   C. SIX INCH CURB AND CATCH BASIN INLET EAST JORDAN IRON WORKS, INC. #1051Z3 AND 1020M1 GRATE

   D. THREE INCH INLET AND CATCH BASIN INLET EAST JORDAN IRON WORKS, INC #7525Z FRAME AND 7525M GRATE

   E. YARD INLET EAST JORDAN IRON WORKS, INC #6527 GRATE

IEPA CROSSING REQUIREMENTS

1. HORIZONTAL SEPARATION:

   A. WATERMAINS SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER OR SEWER SERVICE CONNECTION.

   B. WATERMAINS MAY BE LAID CLOSER THAN TEN FEET TO A SEWER LINE WHEN:

      I. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN FEET;

      II. THE WATERMAIN IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER; AND

      III. THE WATERMAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.

   I. BOTH THE WATERMAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING THE REQUIREMENTS OF SECTION 653.111 WHEN IT IS IMPOSSIBLE TO MEET (A) OR (B) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.

2. VERTICAL SEPARATION:

   A. A WATERMAIN SHALL BE LAID SO THAT ITS INVERT IS 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN FEET HORIZONTALLY OR ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.

   B. BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING REQUIREMENTS OF SECTION 653.111 WHEN:

      I. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN 9A) ABOVE; OR

      II. THE WATERMAIN PASSES UNDER A SEWER DRAIN.

   C. A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATERMAIN.

   D. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET.

PAVING

1. BASE COURSE SHALL BE AGGREGATE BASE COURSE, CONFORMING TO IDOT STANDARD SPECIFICATIONS (SEE PLANS FOR THICKNESS).

2. SURFACE COURSE AND BINDER COURSE SHALL BE HOT-MIX ASPHALT (HMA) CONFORMING TO IDOT STANDARD SPECIFICATIONS (SEE PLANS FOR THICKNESS).

3. CURB & GUTTER AND SIDEWALK SHALL BE CLASS SI PORTLAND CEMENT CONCRETE CONFORMING TO IDOT STANDARD SPECIFICATIONS.

4. SUBGRADE SHALL BE FINISHED TO BE WITHIN 0.1 FEET OF DESIGN SUBGRADE ELEVATIONS BY THE EARTHWORK CONTRACTOR. FINE GRADING FOR PAVEMENTS AND SIDEWALKS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR.

5. AGGREGATE BASE COURSES SHALL BE PRIMED AT THE RATE OF 0.25 TO 0.50 GALLONS PER SQUARE YARD AND BRICK, CONCRETE, OR HMA BASES SHALL BE PRIMED AT THE RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD WITH LIQUID ASPHALT CONFORMING TO THE IDOT STANDARD SPECIFICATIONS AND APPROPRIATE FOR PREVAILING WEATHER AND SITE CONDITIONS. PRIME COAT AND CLEANING THE EXISTING SURFACE SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

6. PAVEMENT SHALL BE CONSTRUCTED ON A THOROUGHLY COMPACTED SUBGRADE MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT. PRIOR TO PLACEMENT OF THE NEW PAVEMENT, THE SUBGRADE SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK (MINIMUM 20 TONS). PROOF ROLLING SHALL BE WITNESSED BY THE GEOTECHNICAL CONSULTANT.

7. SIDEWALKS SHALL BE OF THE THICKNESS AND DIMENSIONS AS SHOWN IN THE CONSTRUCTION PLANS. CONTRACTION JOINTS SHALL BE SET AT 5' CENTERS AND ½ INCH PREMOLDED FIBER EXPANSION JOINTS SHALL BE SET AT 50' CENTERS AND WHERE THE SIDEWALK MEETS THE CURB, A BUILDING, OR AT THE END OF EACH POUR. ALL SIDEWALKS CONSIDERED TO BE ACCESSIBLE ROUTES AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT (ADA) SHALL BE SUBJECT TO ILLINOIS ACCESSIBILITY CODE (IAC) REQUIREMENTS, UNLESS OTHERWISE NOTED.

8. TESTING OF THE SUBBASE, BASE COURSE, BINDER COURSE, SURFACE COURSE, AND CONCRETE WORK SHALL BE REQUIRED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. A QUALIFIED TESTING FIRM SHALL BE EMPLOYED TO PERFORM THE REQUIRED TESTS.

9. ASPHALT JOINTS FOR BINDER AND SURFACE COURSES ARE TO BE STAGGERED.

SEWER AND SERVICE CONNECTION PIPE.

a. REINFORCED CONCRETE PIPE - CIRCULAR REINFORCEMENT, MINIMUM CLASS 3, ASTM C76, WITH EPOXY LINING, 18" DIAMETER AND LARGER WITH ASTM CA43 JOINTS.

b. DUCTILE IRON PIPE - ANSI A21.51 (AWWA C151), MINIMUM THICKNESS, CLASS 52 PER ANSI A21.51 (AWWA C150), CALCIUM ALUMINATE CEMENT-LINED.

c. POLYVINYL CHLORIDE (PVC) - ASTM D-3034, SDR 26 LESS THAN 20 FOOT DEPTH AT FINAL GRADE FOR SIZES 6" THROUGH 12" INSIDE DIAMETER AND AWWA C905, DR 25 FOR SIZES 14" THROUGH 36" INSIDE DIAMETER.

d. POLYVINYL CHLORIDE MOLECULARLY ORIENTED PRESSURE PIPE (PVCO) - ASTM F1483, AWWA C909 CLASS 150 FOR SIZES 6" THROUGH 12" I.D. AT 20 FEET OR GREATER DEPTH WITH GASKETS MEETING ASTM F477, JOINTS MEETING ASTM D-3139..

e. HIGH DENSITY POLYETHYLENE PIPE (HDPE) FOR FORCE MAIN ONLY - AWWA C906.

SEWER AND SERVICE CONNECTION PIPE JOINTS.

a. REINFORCED CONCRETE PIPE - ASTM C443.

b. DUCTILE IRON PIPE - ANSI A21.11 (AWWA C111).

c. POLYVINYL CHLORIDE (PVC) - ASTM D-3212.

d. POLYVINYL CHLORIDE MOLECULARLY ORIENTED PRESSURE PIPE (PVCO)

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 09-20-2022

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

ILLINOIS

SPECIFICATIONS

Wild Fork™ MEAT & SEAFOOD MARKET

ORLAND PARK

TM&A

DRAWING NO.

C1.1

MWRD GENERAL NOTES

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   - STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   - ELK GROVE VILLAGE MUNICIPAL CODE;
   - THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   - IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
2. THE ELK GROVE VILLAGE ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS 0 FT.
2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

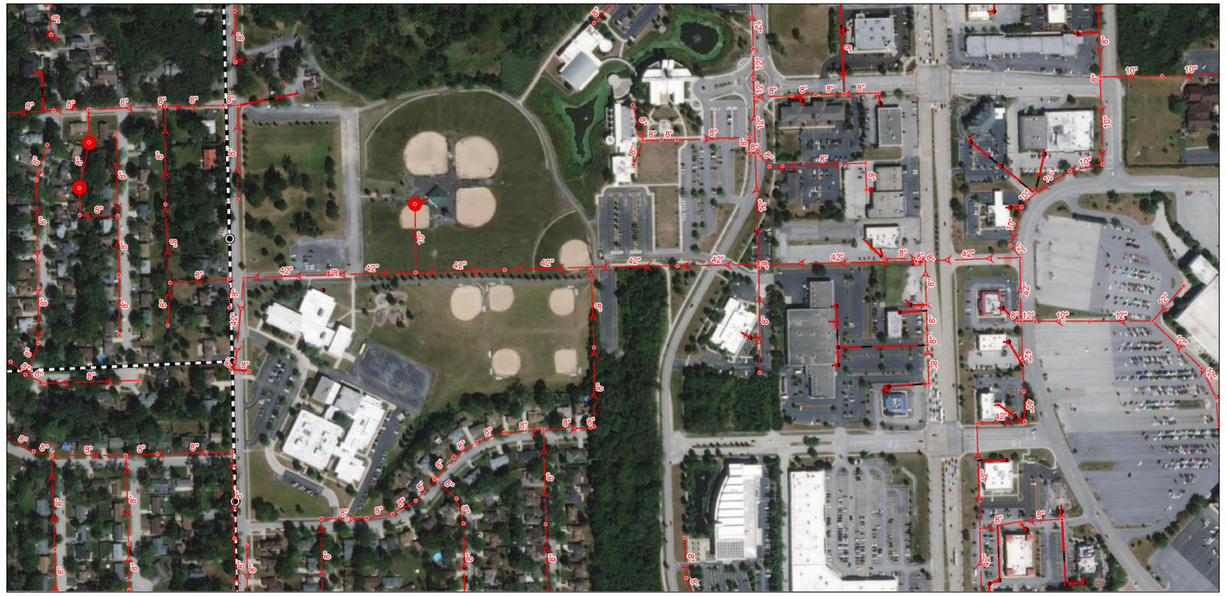
PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VERIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-2672 OR ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3212
14-INCH TO 48-INCH	AWWA C905	ASTM D-3212

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS),REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
9. "BAND SEAL" OR SIMILAR NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR MATERIALS.
10. BELOW THE FLOOD PROTECTION ELEVATION (FPE = BFE + 2 FEET), ALL SANITARY SEWER MANHOLES AND STRUCTURES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATER MAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATER MAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS.
13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT?OF?WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
9. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
10. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
11. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
12. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
13. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
14. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
15. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
16. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER.
17. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
18. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATER MAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
19. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
20. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
21. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
22. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER SITE INSPECTOR, OR MWRD.

GIS Webmap - Village of Orland Park



8/30/2022, 10:54:46 AM

1:4,514

0 0.05 0.1 0.2 mi
0 0.075 0.15 0.3 km

- Municipal Boundary
- Abandoned Sanitary Sewer Manhole
- Abandoned Sanitary Sewer Main
- Sanitary Manhole
- Private Manhole (service)
- Missing Manholes
- Sanitary Sewer Main
- Private Sanitary Main (service)
- Wet Wells
- LS Generator Bldg
- FM Valve
- Sanitary Forcemain
- MWRD Manhole
- MWRD Sanitary Sewer Main
- Village Limits Mask

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Village of Orland Park, Illinois
Cook County GIS | Earthstar Geographics | County of Will, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA |

MWRD ROUTING MAP

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PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

MWRD NOTES AND MWRD ROUTING MAP

ORLAND PARK — Wild Fork™ MEAT & SEAFOOD MARKET — ILLINOIS

TM&A

DRAWING NO.
C1.2

NOTES:

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

   V3 COMPANIES OF ILLINOIS LTD.
   7325 JANES AVENUE
   WOODRIDGE, IL 60517

   COPIES OF THE SURVEY ARE AVAILABLE FROM THE SURVEYOR. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

2. ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.

3. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

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EXISTING CONDITIONS PLAN

Wild Fork™ MEAT & SEAFOOD MARKET

ORLAND PARK ILLINOIS

TM&A

V3

DRAWING NO.
C2.0

GRAPHIC SCALE
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1" = 20'

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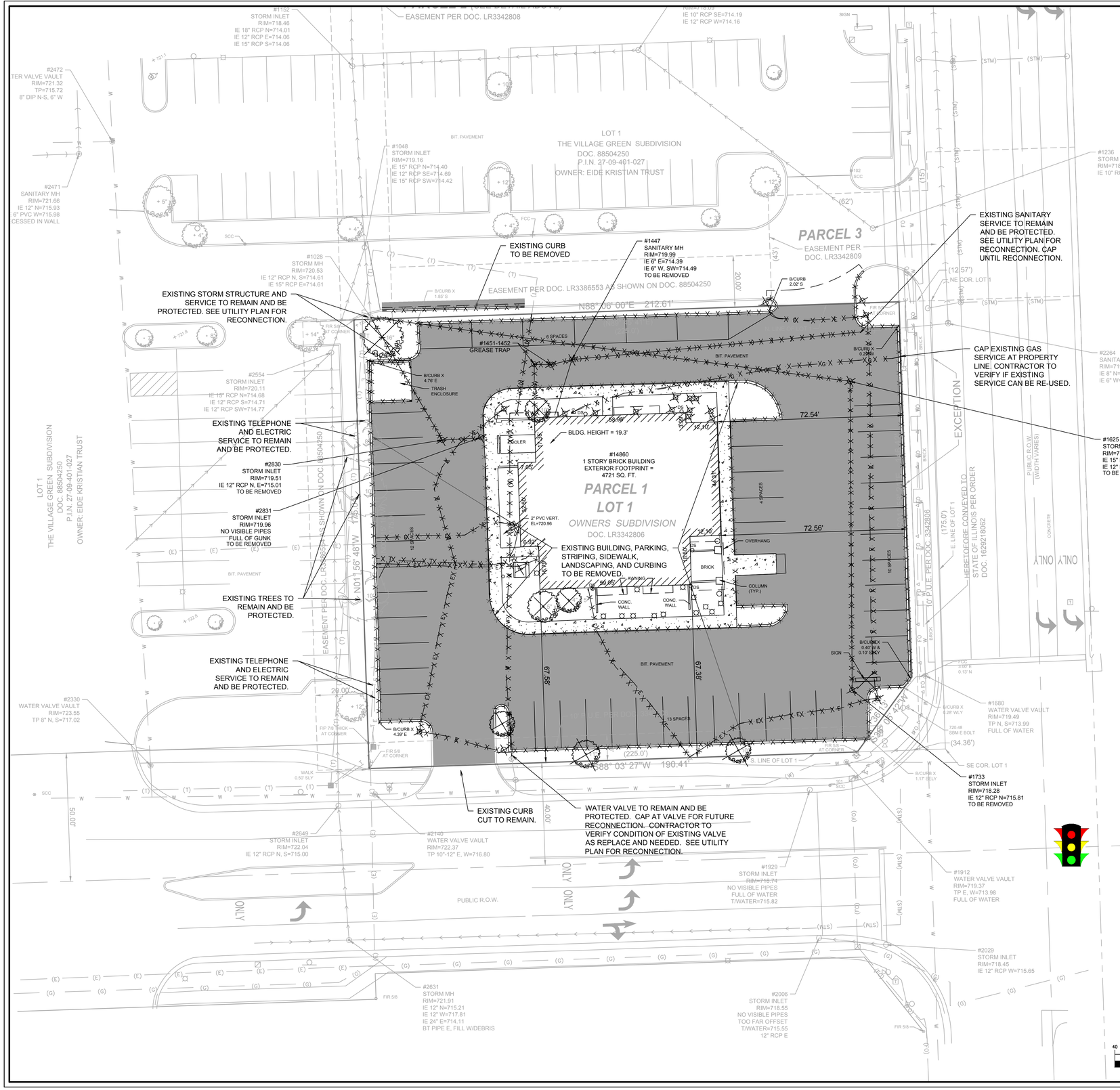

DEMOLITION LEGEND

- ASPHALT PAVEMENT REMOVAL (FULL DEPTH)
- CONCRETE PAVEMENT OR SIDEWALK REMOVAL (FULL-DEPTH)
- BUILDING TO BE REMOVED
- CONC. CURB/GUTTER OR UTILITY LINE TO BE REMOVED
- STRUCTURE/TREE TO BE REMOVED
- SAWCUT LINE

DEMOLITION PLAN

1. THE EXTENT OF DEMOLITION WORK IS AS GENERALLY SHOWN ON THE CONSTRUCTION DOCUMENTS. SPECIFIC DEMOLITION PROCESSES OR PROCEDURES FOR DEMOLITION AND STRUCTURAL CONSIDERATIONS ARE THE RESPONSIBILITY OF OTHERS. DEMOLITION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL AND DISPOSAL OFFSITE OF THE FOLLOWING ITEMS:
   - SIDEWALK AND ON-SITE PAVEMENT
   - BUILDINGS, FOUNDATIONS, AND SUPPORTING WALLS AND SLABS
   - UTILITIES
   - CONSTRUCTION DEBRIS
2. ALL PAVEMENT TO BE REMOVED ADJACENT TO PAVEMENT THAT IS TO REMAIN SHALL BE SAWCUT FULL DEPTH AT THE EDGES PRIOR TO REMOVAL TO OBTAIN A "CLEAN" JOINT WHERE IT ABUTS NEW CURB OR PAVEMENT.
3. CONTRACTOR MUST RECEIVE APPROVAL FROM CIVIL ENGINEER AND GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL.
4. STRUCTURES TO BE DEMOLISHED SHALL BE VACATED AND DISCONTINUED FROM USE PRIOR TO START OF WORK. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES TO BE DEMOLISHED. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY OWNER IN SO FAR AS PRACTICABLE. HOWEVER, VARIATIONS WITHIN THE STRUCTURES MAY OCCUR BY OWNER'S REMOVAL AND SALVAGE OPERATIONS PRIOR TO START OF DEMOLITION WORK.
5. ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED AS WORK PROGRESSES AND AS APPROVED BY THE OWNER. SALVAGED ITEMS MUST BE TRANSPORTED FROM THE SITE AS THEY ARE REMOVED. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED.
6. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF BUILDINGS, PAVEMENTS AND UTILITIES TO REMAIN FROM ANY DAMAGE AND SHALL BE RESPONSIBLE FOR REPAIRING THE SAME.
8. EXISTING UTILITIES, WHICH DO NOT SOLEY SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS.
9. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO HAVE THEIR TRENCHES BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY.
10. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
11. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
12. REMOVAL, ABANDOMENT, AND RELOCATION OF EXISTING UTILITIES SHALL BE COMPLETED AS GENERALLY DEPICTED ON THESE PLANS. CONTRACTOR TO COORDINATE RELOCATIONS WITH THE UTILITY OWNER. CONTRACTOR SHALL MINIMIZE DISRUPTION OF SERVICE AND SHALL WORK WITH UTILITY OWNER TO MAINTAIN AN ACCEPTABLE LEVEL OF SERVICE.
13. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO MINIMIZE DUST AND DIRT FROM RISING AND SCATTERING IN THE AIR. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
14. DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
15. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION TO THE FINAL LINES AND GRADES SHOWN ON THE CONTRACT DOCUMENTS. BACKFILL MATERIAL SHALL BE IDOT APPROVED AGGREGATE (CA-6) OR APPROVED EQUAL.
16. SEE LANDSCAPE PLANS FOR INFORMATION ON LANDSCAPE AND TREE PROTECTION, PRESERVATION, AND REMOVAL.
17. EXISTING MONITORING WELLS ARE TO BE REMOVED AS NECESSARY AND SEALED BY STATE LICENSED WELL DRILLER PER ILLINOIS DEPARTMENT OF PUBLIC HEALTH REQUIREMENTS AND/OR LOCAL/COUNTY REQUIREMENTS. (COOK COUNTY ONLY: CONTRACTOR TO COORDINATE WITH THE COOK COUNTY HEALTH DEPARTMENT (708-492-2000) FOR DIRECTION AND REQUIRED SEALING REPORT DOCUMENTATION).
18. THESE DRAWINGS DO NOT INCLUDE THE REMOVAL OF UNDERGROUND STORAGE TANKS. SHOULD UNDERGROUND STORAGE TANKS BE ENCOUNTERED, CONTRACTOR TO CONTACT OWNER AND ENGINEER TO DETERMINE RESPONSIBILITY FOR ANY ENVIRONMENTAL REMEDIATION OR REMOVAL WORK AS NECESSARY. ANY REMOVAL OF UNDERGROUND STORAGE TANKS MUST BE IN CONFORMANCE WITH LOCAL AND STATE STANDARDS.

GRAPHIC SCALE
40 20 0 40
1" = 40'

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DEMOLITION PLAN

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
C2.1

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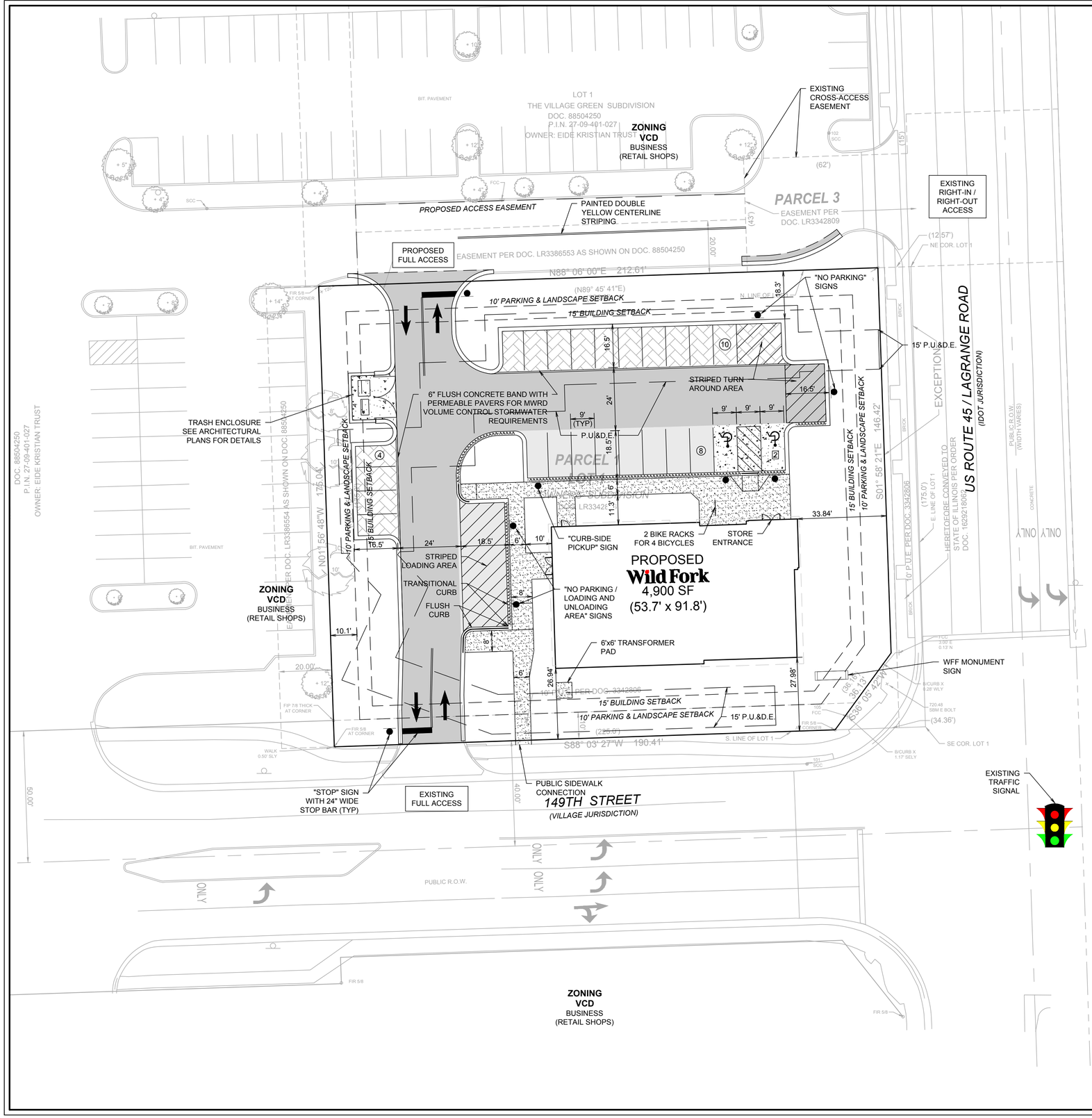

NOTES:

1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
3. BUILDING DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		RIGHT-OF-WAY LINE
		PROPERTY LINE (EXTERIOR)
		LOT LINE (INTERIOR)
		EASEMENT LINE
		FENCE LINE
		CENTERLINE
		B-6.12 CURB & GUTTER
		DEPRESSED CURB & GUTTER
		REVERSED PITCH B-6.12 CONCRETE CURB AND GUTTER

PAVING LEGEND

HEAVY DUTY HMA PAVEMENT

1.5" HMA SURFACE COURSE, MIX C N50
2.5" N50 HMA BINDER COURSE, IL19.0, N50
10" AGGREGATE BASE COURSE - CA6

REGULAR HMA PAVEMENT

1.5" HMA SURFACE COURSE, MIX C N50
2.5" HMA BINDER COURSE, IL19.0, N50
8" AGGREGATE BASE COURSE - CA6

CONCRETE PAVEMENT

7" P.C. CONCRETE PAVEMENT WITH (6X6/W2.9=W2.9) W.W.F.
4" AGGREGATE BASE COURSE - CA6

CONCRETE SIDEWALK

5" P.C. CONCRETE PAVEMENT
4" AGGREGATE BASE COURSE - CA6

PERMEABLE PAVERS

UNILOCK ECO-OPTILIC PERMEABLE PAVERS
(OR APPROVED EQUAL)

SITE SUMMARY

ZONING

PROPOSED: VCD, VILLAGE CENTER DISTRICT
(EXISTING ZONING TO REMAIN)

LOT AREA

IMPERVIOUS AREA	= 17,755 SF (0.4068 AC)	48%
PERVIOUS AREA	= 16,380 SF (0.3769 AC)	45%
PERMEABLE PAVERS	= 2,752 SF (0.0632 AC)	7%
TOTAL LOT AREA	= 36,887 SF (0.8468 AC)	

PROPOSED BUILDING

4,900 SF.

PARKING SUMMARY

PROVIDED STALLS

STANDARD STALLS	= 22
ACCESSIBLE STALLS	= 2
TOTAL PARKING PROVIDED	= 24

REQUIRED STALLS

1 SPACE PER 250 SF (REQUIRED)	= 20
20% INCREASE (ALLOWED)	= 4
TOTAL PARKING (ALLOWED)	= 24

GRAPHIC SCALE
20 10 0 20
1" = 20'

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LAYOUT AND PAVING PLAN

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
C3.0

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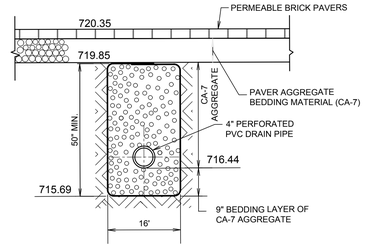
NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
◎	◉ ◉ ◉	UTILITY STRUCTURE WITH CLOSED LID
□	▣	CURB INLET
○	◉ ◎	DRAINAGE STRUCTURE WITH OPEN LID
♂	●	FIRE HYDRANT
⊗	⧗	VALVE IN VALVE BOX
◎	⧗ ⧗	GATE VALVE IN VALVE VAULT
▱	▱	FLARED END SECTION (F.E.S.)
710	710	CONTOUR
× 706.00	× 706.0	SPOT ELEVATION
		STORMWATER FLOW DIRECTION
⇨	➡	STORMWATER OVERFLOW ROUTE



SECTION A-A
MWRD CONTROL VOLUME
CROSS SECTION
N.T.S.

GRAPHIC SCALE
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1" = 20'

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GRADING PLAN

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
C4.0

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NOTES:

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2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.

LEGEND

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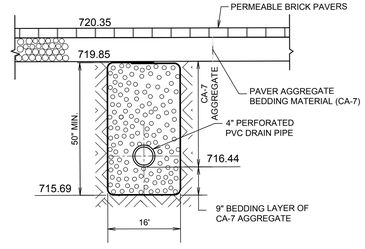
◫	◫	FLARED END SECTION (F.E.S.)
710	710	CONTOUR
× 706.00	× 706.0	SPOT ELEVATION
		STORMWATER FLOW DIRECTION
⇨	➡	STORMWATER OVERFLOW ROUTE



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EROSION CONTROL PLAN

1. CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR TO INSTALL SILT FENCE PRIOR TO COMMENCEMENT OF ANY EARTHWORK. CONTRACTOR TO MAINTAIN SILT FENCE AS SHOWN AND INSTALL ADDITIONAL SILT FENCE WHEREVER NECESSARY THROUGHOUT CONSTRUCTION ACTIVITIES TO MINIMIZE SOIL EROSION.
3. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL OPEN LID STRUCTURES. SEE INLET PROTECTION DETAIL ON SHEET C4.2.
4. EROSION CONTROL BLANKET (ROLLMAX ERONET S150 OR APPROVED EQUAL) SHALL BE PLACED ON ALL AREAS WITH SIDE SLOPES OF 4:1 OR GREATER, AND IN BOTTOM AND SIDE SLOPES OF SWALES WHERE NOTED.
5. ALL SEDIMENT AND EROSION CONTROL MEASURES IN AND AROUND THE PROPOSED IMPROVEMENTS ARE TO REMAIN IN PLACE AND TO BE MAINTAINED THROUGHOUT CONSTRUCTION ACTIVITIES UNTIL THE PROPOSED IMPROVEMENTS ARE COMPLETED AND THE SITE ADEQUATELY STABILIZED.

EROSION CONTROL LEGEND

- INLET FILTER BASKET
- SF — SILT FENCE
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE

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EROSION CONTROL PLAN

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

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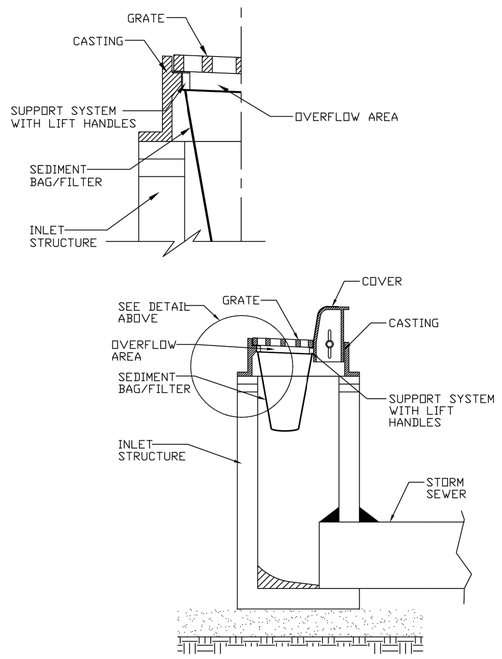
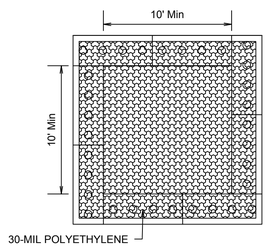
INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION



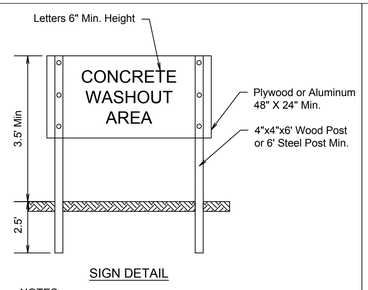
REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO.
IUM-561D
SHEET 1 OF 1
DATE 01-11-11

TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL



PLAN VIEW

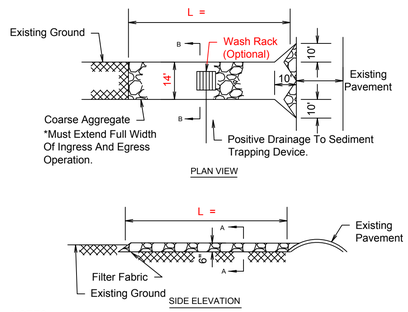


SIGN DETAIL

NOTES:

1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
3. CONCRETE COLLECTION AREA SECURED IN PLACE LINED WITH 30-MIL POLYETHYLENE OR APPROVED EQUIVALENT.

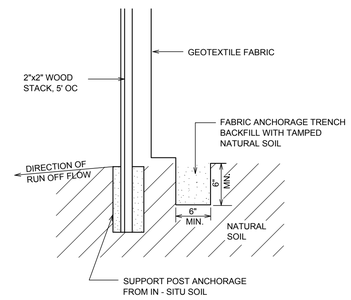
STABILIZED CONSTRUCTION ENTRANCE PLAN



NOTES:

1. Filter fabric shall meet the requirements of material specification592 GEOTEXTILE, Table I or 2, Class, I II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

SILT FENCE CONSTRUCTION DETAIL



NOTES:

1. SILT FENCE SHALL BE REMOVED AS DIRECTED BY ENGINEER.
2. SILT FENCE SHALL BE MIRAFI PREFABRICATED SILT FENCE OR APPROVED EQUAL.
3. SILT FENCE SHALL BE MIRAFI PREFABRICATED SILT FENCE OR APPROVED EQUAL.

E02

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

EROSION CONTROL DETAILS

Wild Fork℠ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TMCA

DRAWING NO.
C4.2

LOT 1
THE VILLAGE GREEN SUBDIVISION
DOC. 88504250
P.I.N. 27-09-401-027
OWNER: EIDE KRISTIAN TRUST

BIT. PAVEMENT

#1048
STORM INLET
RIM=719.16
IE 15" RCP N=714.40
IE 12" RCP SE=714.69
IE 15" RCP SW=714.42

#1028
STORM MH
RIM=720.53
IE 12" RCP N, S=714.61
IE 15" RCP E=714.61
CONNECT TO EXISTING MH
IE: 714.61

#2554
STORM INLET
RIM=720.11
IE 15" RCP N=714.68
IE 12" RCP S=
IE 12" RCP SW=

#1236
STORM INLET
RIM=718.50
IE 10" RCP NW=715.49

#2264
SANITARY MH
RIM=719.42
IE 8" N=712.72
IE 6" W=?

EASEMENT PER DOC. LR3386553 AS SHOWN ON DOC. 88504250

EASEMENT PER DOC. LR3342809

SAN MH
PR. IE: 714.00 (S)
EX. IE: 713.36 (E) V.I.F.
INSTALL OVER EXISTING 8" SAN SEWER

EXISTING 6" SANITARY SERVICE TO REMAIN

32 LF - 12" RCP @ 0.75%

24 LF - 12" RCP @ 0.63%

103 LF - 4" PVC PERFORATED UNDERDRAIN @ 0.00%

SMH 1

CO 3

CO 4

CO 5

14 LF - 6" PVC @ 0.00%

C01

ST 1-1

15' P.U.&D.E.

IE: 716.68

ST 4-1
UNDERGROUND DETENTION
TOP / HWL = 718.80
BOTTOM / IE = 715.00

CONNECT UNDERDRAIN TO UNDERGROUND DETENTION VAULT
IE: 716.44

29 LF - 8" HDPE @ 1.09%

49 LF - 6" HDPE @ 1.00%

RESTRICTOR STRUCTURE, INSTALL OVER EXISTING 12" STORM SEWER
SEE DETAIL SHEET C6.1

IE: 715.00

P.U.&D.E.

98 LF - 8" PVC PERFORATED UNDERDRAIN @ 0.00%

CONNECT UNDERDRAIN TO UNDERGROUND DETENTION VAULT
IE: 716.44

CO 1

ST 4-2

29 LF - 8" PVC @ 0.00%

ST 3-2

28 LF - 12" PVC PERFORATED UNDERDRAIN @ 0.00%

52 LF - 6" HDPE @ 1.00%

CO 2

12 LF - 12" RCP @ 0.42%

1 ½" DOMESTIC WATER SERVICE

PROPOSED
Wild Fork
4,900 SF
(53.7' x 91.8')

4" SANITARY STUB
IE: 716.26

SMH 2

ST 2-1

18 LF - 12" RCP @ 0.50%

ST 2-2

ST 3-3

32 LF - 6" PVC PERFORATED UNDERDRAIN @ 0.00%

ST 2-7

31 LF - 6" HDPE @ 2.80%

8" ROOF DRAIN
IE: 717.6

33 LF - 12" RCP @ 0.52%

ST 2-3

20 LF - 8" PVC @ 1.79%

YARD DRAIN (TYP)

ST 2-6

ST 2-5

15' P.U.&D.E.

51 LF - 12" RCP @ 0.49%

ST 2-4

C02

51 LF - 8" HDPE @ 1.00%

48 LF - 12" RCP @ 0.52%

US ROUTE 45 / LAGRANGE ROAD
(IDOT JURISDICTION)

149TH STREET
(VILLAGE JURISDICTION)

#1680
WATER VALVE VAULT
RIM=719.49
TP N, S=713.99
FULL OF WATER

720.48
SBM E BOLT

REMOVE AND REPLACE FIRE HYDRANT PER VILLAGE DETAIL WM-06

CONNECT TO EXISTING WATER SERVICE AFTER EXISTING VALVE BOX. VERIFY EXISTING SERVICE SIZE PRIOR TO ORDERING MATERIAL

#2649
STORM INLET
RIM=722.04
IE 12" RCP N, S=715.00

#2140
WATER VALVE VAULT
RIM=722.37
TP 10"-12" E, W=716.80

#1929
STORM INLET
RIM=718.74
NO VISIBLE PIPES
FULL OF WATER
T/WATER=715.82

#1912
WATER VALVE VAULT
RIM=719.37
TP E, W=713.98
FULL OF WATER

#2029
STORM INLET
RIM=718.45
IE 12" RCP W=715.65

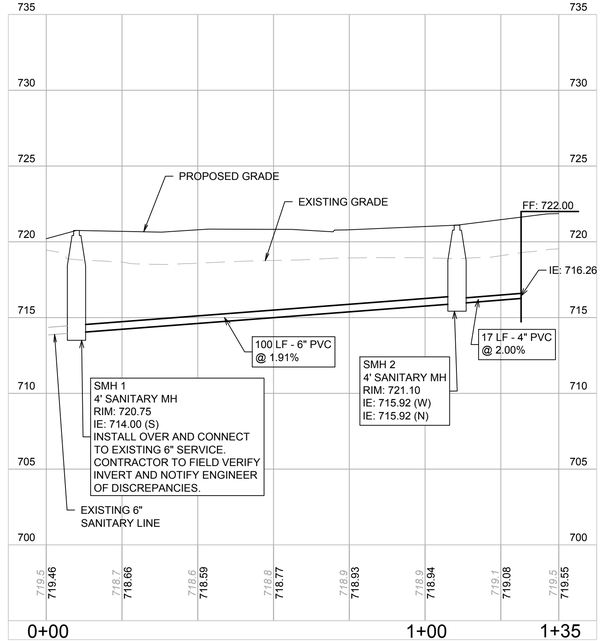
#2631
STORM MH
RIM=721.91
IE 12" N=715.21
IE 12" W=717.81
IE 24" E=714.11
BT PIPE E, FILL W/DEBRIS

#2006
STORM INLET
RIM=718.55
NO VISIBLE PIPES
TOO FAR OFFSET
T/WATER=715.55
12" RCP E

GRAPHIC SCALE
20 10 0 20
1" = 20'

NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
2. UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS.
FRAME AND CLOSED LID STORM STRUCTURES LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE "NEENAH R-1772 WITH TYPE C LID (OR EQUIVALENT) WITH PERMA-GRIP SURFACE. DRILL 1 - 1" DIAMETER LIFT HOLE INSTEAD OF A STANDARD PICK HOLE."



SANITARY PROFILE

UTILITY CROSSING

(C01) 6" STM B/P 716.13
6" SAN T/P 714.92

(C02) 12" STM B/P 716.16
1-1/4" WM T/P 714.66

GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)
VERTICAL: 0 2.5 5 (IN FEET)

STORM STRUCTURE TABLE

STRUCTURE	DESCRIPTION	RIM	INVERT IN	INVERT OUT
CO 1 SEE DETAIL SHEET C6.0	CLEANOUT	RIM: 720.38	716.44 (6" S)	716.44 (8" E)
CO 2	CLEANOUT	RIM: 720.38		716.44 (6" N)
CO 3	CLEANOUT	RIM: 720.38	716.44 (4" E)	716.44 (6" S)
CO 4	CLEANOUT	RIM: 720.38		716.44 (4" W)
CO 5	CLEANOUT	RIM: 720.49	716.68 (8" E)	
ST 1-1	5' MH (Closed) RESTRICTOR MH	RIM: 721.35	714.85 (12" SE)	714.85 (12" NW)
ST 2-1	3' CATCH BASIN (OPEN)	RIM: 720.21	716.49 (12" SE)	716.49 (12" NE)
ST 2-2	3' MH (OPEN) CURB GRATE	RIM: 720.40	716.58 (12" SW)	716.58 (12" NW)
ST 2-3	4' MH (OPEN)	RIM: 720.20	716.75 (12" E)	716.75 (12" NE)
ST 2-4	3' MH (OPEN)	RIM: 721.00	717.00 (12" E)	717.00 (12" W)
ST 2-5	4' MH (OPEN)	RIM: 720.50	717.25 (8" E) 717.25 (8" NE)	717.25 (12" W)
ST 2-6	YARD DRAIN	RIM: 720.50		717.76 (8" W)
ST 2-7	YARD DRAIN	RIM: 721.10		718.10 (6" S)
ST 3-1	3' CATCH BASIN (OPEN)	RIM: 720.50	717.00 (6" S)	717.00 (8" W)
ST 3-2	YARD DRAIN	RIM: 720.50	717.49 (6" S)	717.49 (6" N)
ST 3-3	YARD DRAIN	RIM: 720.50		718.01 (6" N)
ST 4-1	2' CLOSED FRAME AND GRATE MAINTENANCE ACCESS TO UNDERGROUND VAULT	RIM: 720.58		
ST 4-2	2' CLOSED FRAME AND GRATE MAINTENANCE ACCESS TO UNDERGROUND VAULT	RIM: 720.79		

REVISIONS

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PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

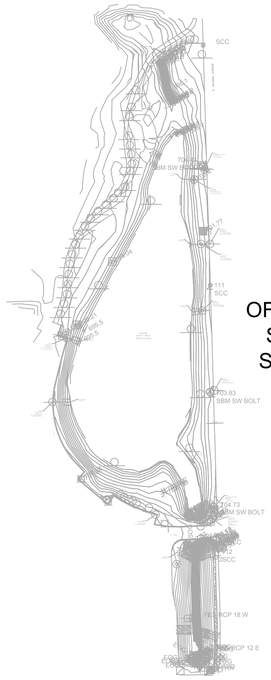
UTILITY PLAN

Wild Fork℠ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

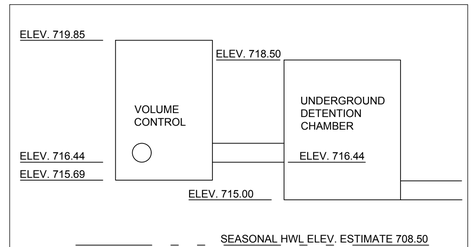
TMGA

DRAWING NO.
C5.0

n:\2020\20525\20525.012\Drawings\ACAD\LD\S04\sheet drawings\C5.0 Util20525.012.dwg10/21/2022



OFFSITE EXISTING
STORMWATER
STORAGE AREA



ON-SITE DETENTION SECTION

MWRD SUMMARY

CURVE NUMBER CALCULATIONS:

CN TRIBUTARY TO BASINS = 86.78
CN ADJUSTED = 81.40

DETENTION SUMMARY:

BASIN BOTTOM= 715.00
NWL = 715.00
HWL = 718.80

OFFSITE VOLUME PROVIDED = 0.231 AC-FT
ONSITE VOLUME REQUIRED = 0.02 AC-FT
VOLUME CONTROL REQUIRED = 0.039 AC-FT
TOTAL STORAGE REQUIRED = 0.290 AC=FT

SUMMARY:
TOTAL PROPERTY OWNERSHIP = 0.85 AC
TOTAL DEVELOPMENT AREA = 0.85 AC
AREA TRIBUTARY TO BASIN = 0.85 AC

PROPOSED PERVIOUS AREA = 0.38 AC
PROPOSED IMPERVIOUS AREA = 0.41 AC
PROPOSED PERMEABLE PAVER = 0.06 AC

LEGEND

- IMPERVIOUS AREA
- PERVIOUS AREA
- PERMEABLE PAVERS

VILLAGE SUMMARY

STORAGE SUMMARY:

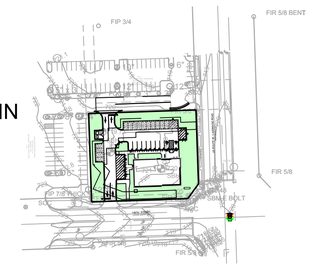
BASIN:
BASIN BOTTOM= 715.00
NWL = 715.00
HWL = 718.80

ONSITE VOLUME PROVIDED = 0.02
OFFSITE VOLUME PROVIDED = 0.231
TOTAL STORAGE PROVIDED = 0.297 AC-FT

RELEASE RATE SUMMARY

100 YEAR
FLOW PER MWRD ORDINANCE = 0.26 CFS REQUIRED
FLOW PER MWRD ORDINANCE = 0.26 CFS PROVIDED

ON-SITE AREA
TRIBUTARY TO BASIN
A = 0.85 AC
CN = 86.78



GRAPHIC SCALE
150 75 0 150
1" = 150'

REVISIONS

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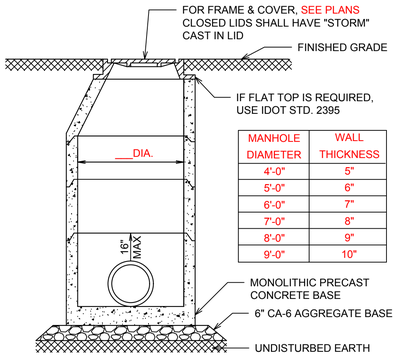
PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

MWRD SCHEDULE D EXHIBIT

Wild Fork℠ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TMGA

DRAWING NO.
C5.1

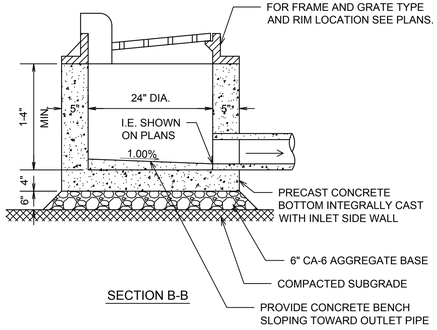


MANHOLE DIAMETER	WALL THICKNESS
4'-0"	5"
5'-0"	6"
6'-0"	7"
7'-0"	8"
8'-0"	9"
9'-0"	10"

NOTES:

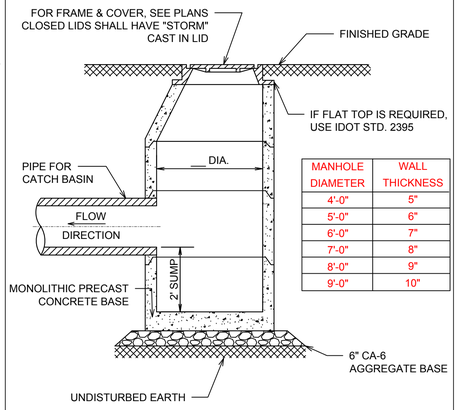
1. STRUCTURES ARE TO COMPLY WITH THE SECTION 32 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND IDOT HIGHWAY STANDARDS.

STORM MANHOLE



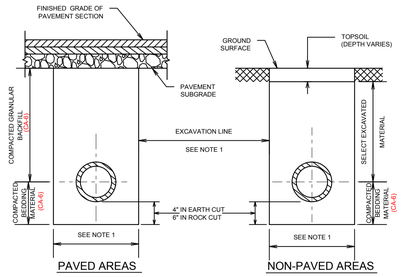
SECTION B-B

2' DIAMETER INLET



MANHOLE DIAMETER	WALL THICKNESS
4'-0"	5"
5'-0"	6"
6'-0"	7"
7'-0"	8"
8'-0"	9"
9'-0"	10"

CATCH BASIN

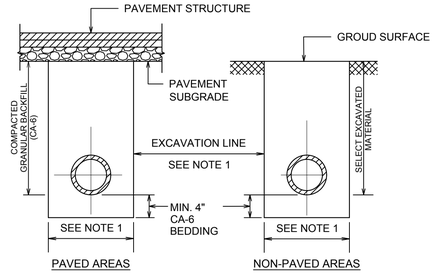


NOTES:

1. EXCAVATION LINE :
   PIPE SIZES UP TO AND INCLUDING 24", USE I.D. PLUS 20"
   PIPE SIZES OVER 24", USE O.D. PLUS 24"

2. LIMITS OF TRENCH BACKFILL SHALL
   EXTEND 2' OUTSIDE ALL PAVED AREAS.

TRENCH BACKFILL SECTIONS FOR STORM SEWER



NOTES:

1. EXCAVATION LINE:
   PIPE SIZES UP TO 24", USE I.D. PLUS 20".
   PIPE SIZES OVER 24", USE O.D. PLUS 24"

2. LIMITS OF TRENCH GRANULAR BACKFILL SHALL
   EXTEND 2' OUTSIDE ALL PAVED AREAS.

3. PROVIDE UNIFORM PIPE SUPPORT.
   - DIG CROSS TRENCHES EXCAVATED 2" WIDER THAN BELL
   - OR SEAT PIPE IN UNIFORM GRANULAR BEDDING

TRENCH BACKFILL SECTIONS FOR DUCTILE IRON WATER MAIN

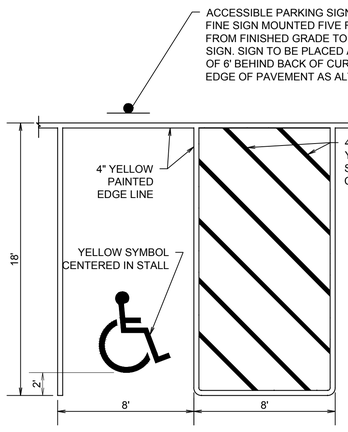
ACCESSIBLE PARKING SIGN

WITH $250 FINE SIGN

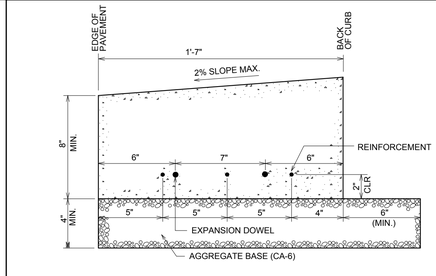
MUTCD R7-8, 12"x18"

MUTCD R7-8a, 12"x6"

ACCESSIBLE PARKING SIGN



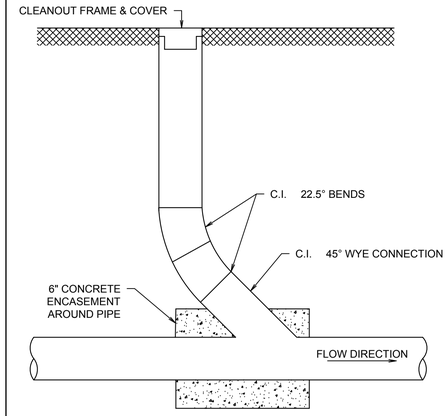
ACCESSIBLE PARKING STALL



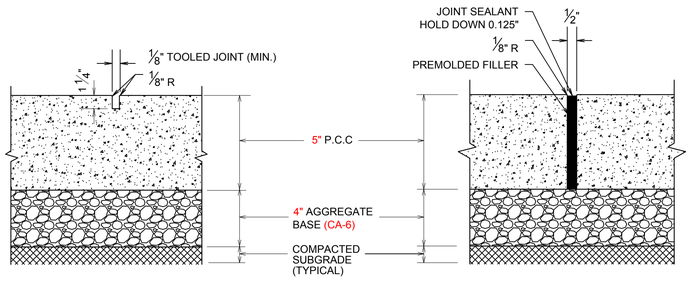
NOTES:

1. REINFORCEMENT: PROVIDE 3 No.5 STEEL BARS, 10' LONG, CENTERED OVER ALL TRENCH CROSSINGS.
2. EXPANSION JOINT: PLACE AT ENDS OF ALL RADII, 5' ON EACH SIDE OF DRAINAGE STRUCTURES AND AT 45' MAX. INTERVALS IN STRAIGHT CURB AND GUTTER. PROVIDE No. 6x18" LONG SMOOTH STEEL DOWEL BARS WITH 1" DIA. GREASE CAP THRU EXPANSION JOINTS. (3/4" THICK BITUMINOUS FILLER MATERIAL).
3. CONTRACTION JOINT: PROVIDE 2" DEEP CONTRACTION JOINTS AT 15' INTERVALS.
4. 2'-6" LONG TIE BAR ON 2'-6" CENTERS SHALL BE PROVIDED WHEN CURB IS ADJACENT TO P.C.C. PAVEMENT.
5. PROVIDE 2 NO. 6 X 2'-6" LONG TIE BARS TO CONNECT EXISTING AND NEW CURB AND GUTTER.
6. SEE PLANS FOR EXACT LOCATIONS OF SPECIAL FLUSH CURBS.

SPECIAL FLUSH CURB



CLEANOUT



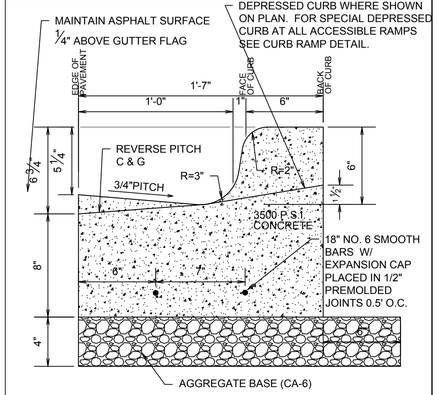
CONTRACTION JOINT DETAIL

EXPANSION JOINT DETAIL

NOTE:

UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE 5'-0" O.C. AND EXPANSION JOINTS TO BE 40' O.C. MAX., OR AT BACK OF CURB, CHANGE OF DIRECTION, OTHER WALK, UTILITY APPURTENANCE, OR FACE OF STRUCTURE.

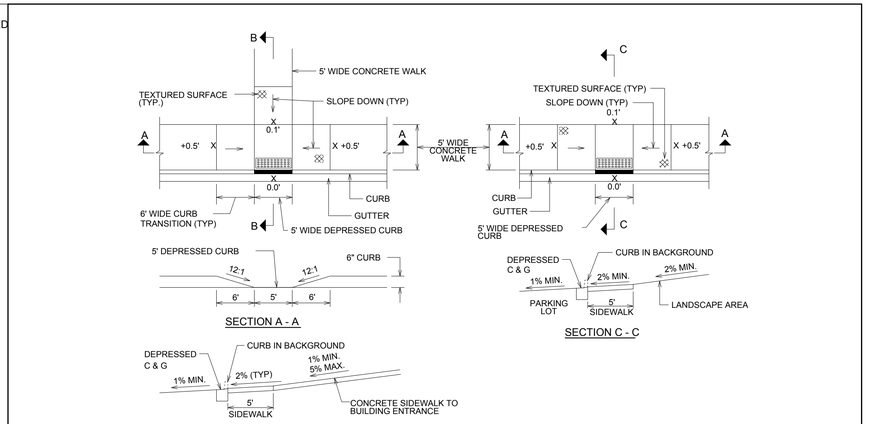
CONCRETE SIDEWALK



NOTES:

1. EXPANSION JOINTS AT 50' ON CENTER AND CONTRACTION JOINTS AT 25' ON CENTERS.
2. CONCRETE SHALL BE CLASS "SI" WITH 6 BAG MIX.
3. THE MINIMUM LONGITUDINAL CURB SLOPE SHALL BE 0.3%.

B6.12 CURB AND GUTTER



ACCESSIBLE RAMP DETAIL

REVISIONS

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1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
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ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

CONSTRUCTION DETAILS

Wild Fork℠ MEAT & SEAFOOD MARKET

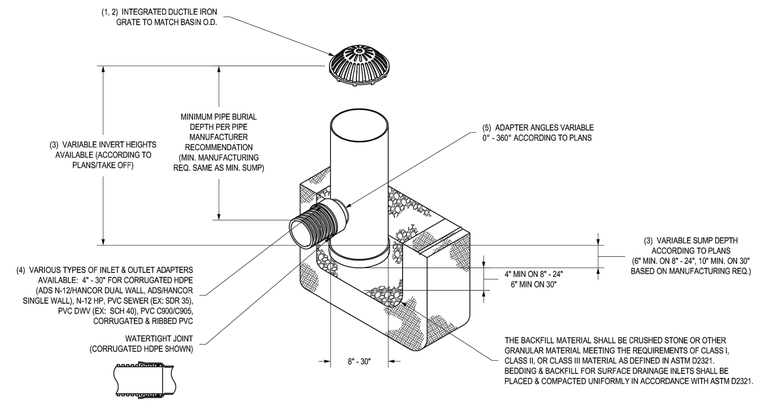
ORLAND PARK ILLINOIS

TMGA

DRAWING NO.

C6.0

NYLOPLAST DRAIN BASIN WITH DOME GRATE

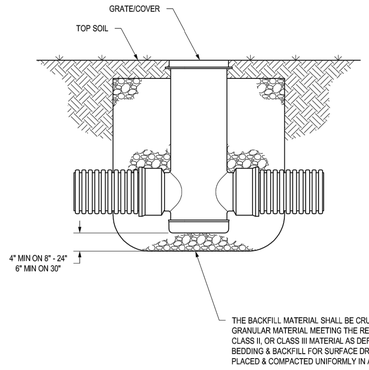


1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

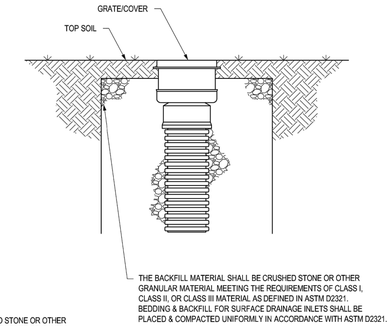
DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 03-25-10		TITLE	DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL
REVISED BY NMH	PROJECT NO./NAME		
DATE 03-11-16			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO.	7001-110-397 REV D

NON TRAFFIC INSTALLATION

DRAIN BASIN



INLINE DRAIN



DRAWN BY CJA	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-30-99		TITLE	DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
REVISED BY NMH	PROJECT NO./NAME		
DATE 03-11-16			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO.	7001-110-111 REV E

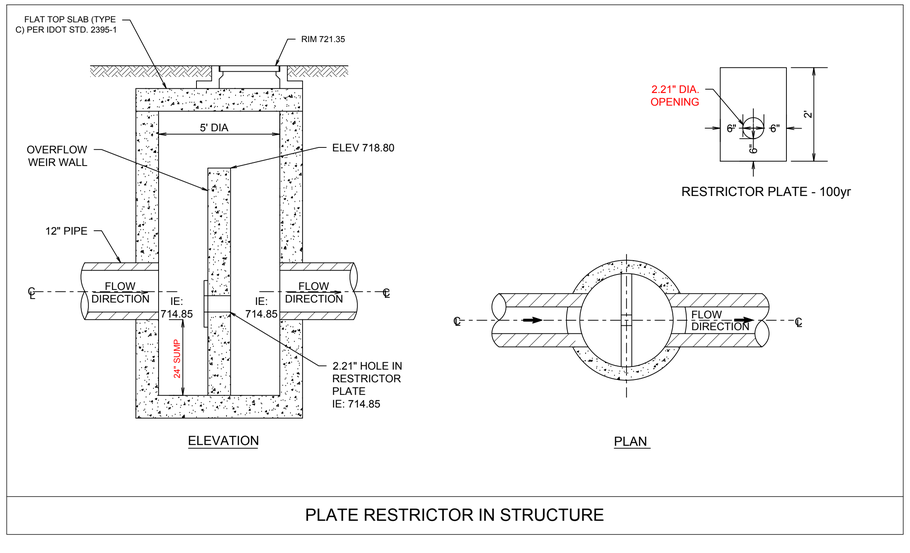
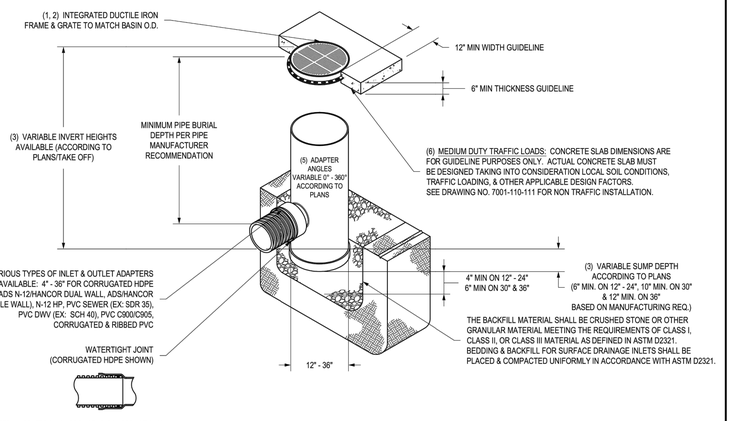


PLATE RESTRICTOR IN STRUCTURE

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



1 - 12" - 30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 24" PEDESTRIAN GRATES SHALL MEET H-10 LOAD RATING. 30" PEDESTRIAN GRATE SHALL MEET H-20 LOAD RATING (SEE DRAWING NO. 7001-110-144 FOR H-20 TRAFFIC LOAD GUIDELINES).

DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 4-20-07	PVC	TITLE	DRAIN BASIN WITH PEDESTRIAN GRATE QUICK SPEC INSTALLATION DETAIL
REVISED BY NMH	PROJECT NO./NAME		
DATE 06-12-18			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO.	7001-110-283 REV E

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

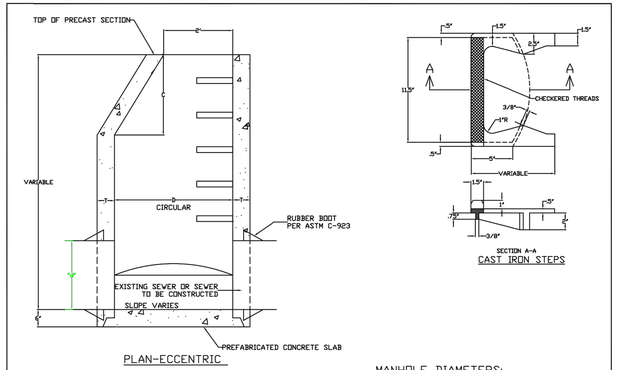
PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

CONSTRUCTION DETAILS

Wild Fork™
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

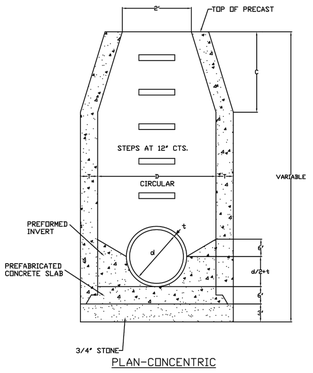
DRAWING NO.
C6.1



PLAN-ECCENTRIC

SECTION A-A

CAST IRON STEPS



PLAN-CONCENTRIC

MANHOLE DIAMETERS:

D:	d
48"	≤ 15"
60"	21" to 36"
72"	> 36"

NOTES:
DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTIONS MAY VARY FROM THE DIMENSION GIVEN TO PLUS 6 INCHES.

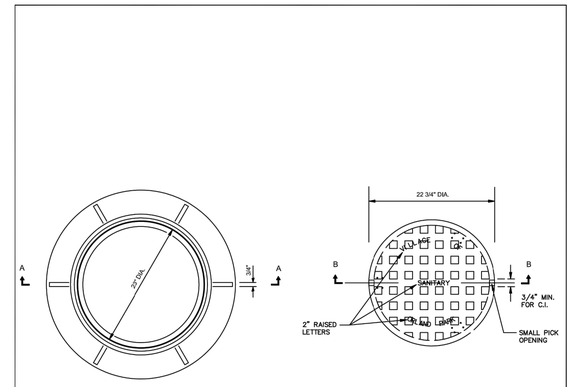
THE CAST IRON STEOPS AS DETAILED HEREIN ARE TYPICAL. STEPS OF EITHER DESIGN AND MATERIAL THAT WILL CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEPS SHOWN MAY BE USED WHEN APPROVED BY THE DIRECTOR OF PUBLIC WORKS & ENGINEERING.

CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ART. 710.17 OF THE STANDARD SPECIFICATIONS.

STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF 3 INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.

NO MORE THAN 2 ADJUSTMENT RINGS WITH A MAXIMUM OF 6 INCHES IS ALLOWED. SPECIFIC REQUIREMENTS FOR FINE ADJUSTMENT ARE PER LAND DEVELOPMENT CODE SECTION 6-408

MANHOLE TYPE A		
MH_TypeA.dwg	SANITARY SEWER IMPROVEMENT	DATE: 11-28-11
DRAWN BY: KTL		REVISED: 01-03-17
Village of ORLAND PARK		REVISED:
		REVISED:
Public Works Department		DRAWING NO. SS-01

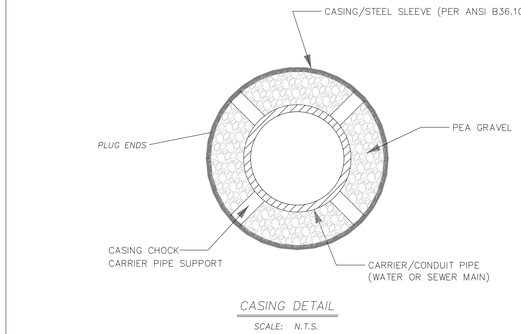


SECTION A-A
CAST FRAME
WT. = 330 LBS.

SECTION B-B
CAST CLOSED LID

1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 & SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. CASTINGS SHALL BE EAST JORDAN IRON WORKS 1022Z1 FRAME AND 1020A HD GS COVER.

SANITARY MANHOLE FRAME & COVER		
MANHOLFRM.DWG	SANITARY SEWER IMPROVEMENT	DATE: 7/13/2006
DRAWN BY: MDC		REVISED: 1/3/2017 KTL
Village of ORLAND PARK		REVISED:
		REVISED:
Public Works Department		DRAWING NO. SS-04



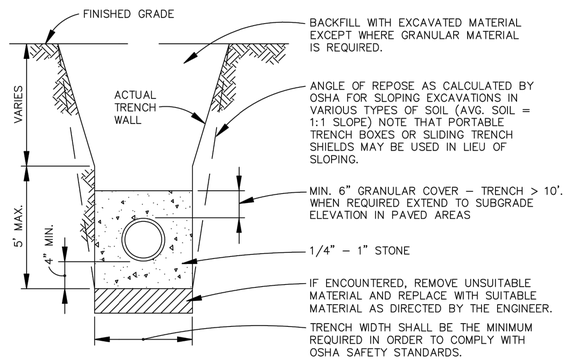
CASING DETAIL

SCALE: N.T.S.

Casing Notes:

1. Minimum yield strength = 35,000 P.S.I.
2. Minimum thickness = 0.5 inch.
3. Joints should be continuous field-welded butt joints per AWWA C206.
4. The casing pipe shall conform to ANSI B36.10.
5. The carrier pipe support system shall be Cascade Water Works stainless steel spacers, or approved equal, installed at 10 foot intervals through the casing pipe.
6. Casing ends shall be sealed with a non-shrink grout cap.
7. All annular space between the carrier pipe and casing pipe shall be filled with Mearl Geoform liquid concentrate low density cellular concrete grout having a minimum density of 45 pounds per cubic foot and a minimum compressive strength at 28 days of 160 pounds per square inch.

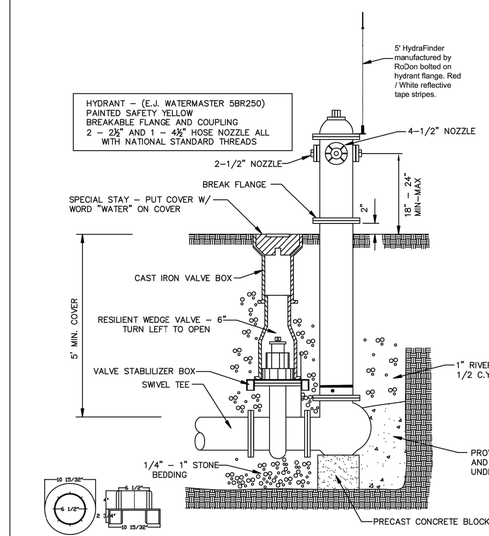
CASING DETAIL		
Casing Detail.dwg	STREET & PAVEMENT	DATE: 10/30/2007
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Public Works Department		DRAWING NO. STR-?



PVC WHEN USED AS SANITARY SEWER SHALL REQUIRE GRANULAR BEDDING AND COVER AS DETAILED.

DIP WHEN USED AS SANITARY SEWER SHALL REQUIRE GRANULAR TO TOP OF PIPE.

TRENCH SECTION SANITARY SEWER		
SANTRENCH.DWG	SANITARY SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of ORLAND PARK		REVISED:
		REVISED:
Engineering Department		DRAWING NO. SS-06



VALVE STABILIZER DETAIL

Notes:

1. If depth of main is greater than 8' then the hydrant and auxiliary valve must be brought to the proper depth using 90 degree bends.
2. Adjustments to existing or proposed hydrants shall not exceed a total of 3'. See Note #1 for adjustments that have a total of adjustments greater than 3'.
3. Use swivel tee when connecting auxiliary valve directly to tee.
4. Use mechanical joint tee when connecting watermain to auxiliary valves more than 24" away from center of the mainline.

HYDRANT INSTALLATION		
BRS_HYDRANT.DWG	WATER MAIN IMPROVEMENT	DATE: 4/24/06
DRAWN BY:		REVISED: wdo
Village of ORLAND PARK		REVISED: wdo 12-01-14
		REVISED: wdo 1-04-16
Engineering Department		DRAWING NO. WM-06

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

ILLINOIS

VILLAGE DETAILS

Wild Fork™ MEAT & SEAFOOD MARKET

ORLAND PARK

TM&A

DRAWING NO.

C6.2

n:\2020\20525\20525.012\Drawings\ACAD\LD\S04\sheet drawings\C6.0 Details20525.012.dwg10/21/2022

Volume Control Practice	Pretreatment Measures
Bioretention Facility	• Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility. • Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the facility to filter out setteable particle and floatable materails. • Where inflow velocities are greater than 3 ft/s, a vegetated filter strip or rock outlet protection must be installed to prevent erosion and distribute flows across the facility. • Vegetated portions of the contributing drainage area must stabilized.
Bioswale	• Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility. • Vegetated portions of the contributing drainage area must be stabilized.
Constructed Wetlands	• Where inflow velocities are greater than 3ft/s, rock outlet protection should be provided to prevent erosion and didtribute the flows into the facility. • Vegetated portions of the contributing drainage area must be stabilized.
Drywell	• Filter screens must be installed on all roof drains directed toward the facility. • For facilities that include inflow pipes, sump shall be installed at manhole immediately upstream of facility.
Green Roof	• No Pretreatment measures required.
Infiltration Trench	• Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility. • Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the trench to filter out setteable particle and floatable materails. • Where inflow velocities are greater than 3 ft/s, a vegetated filter strip or rock outlet protection must be provided to prevent erosion and distribute flows across the facility. • Vegetated portions of the contributing drainage area must stabilized.
Permeable Pavement	• Vegetated filter strip, grass-lined channel, or sump must be installed upstream of the facility to filter out setteable particle and floatable materials. • Vegetated portions of the contributing drainage area must be stabilized.
Storage Below Detention Basin Outlet	• Where inflow velocities are greater than 3 ft/s, rock outlet protection should be provided to prevent erosion and distribute the flows into the facility. • Vegetated portions of the contributing drainage area must be stabilized.
Vegetated Filter Strip	• Level spreader must be installed where runoff enters the facility as shallow concentrated flow to distribute the runoff as sheet flow over the entire facility. • Vegetated portions of the contributing drainage area must be stabilized.
Water Reuse System	• Filter screens must be installed on all roof drains directed toward the facility. • For facilities that include inflow pipes, sump shall be installed at manhole immediately upstream of facility.

1. A porosity of 0.36 shall be used to calculate volume in CA-1 or or CA-7 gradation, 0.25 for CA-16 (volume above underdrain cre3dited at 50%)
2. Storage calculated using average-end method between surface elevation and elevation of overflow grate/check dam.
3. Porosity of 0.25 shall be used to calculate volume in growing media (volume above underdrain at 50%)
4. Surface storage only if check dams are installed.

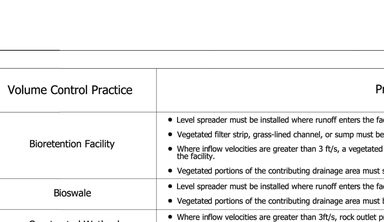
TECHNICAL GUIDANCE MANUAL	7/1/15
VOLUME CONTROL PRETREATMENT MEASURES	STD. DWG. NO.16
	PAGE NO. 17

Volume Control Practice	Void Space of Aggregate [1]	Surface Storage [2]	Growing Media [3]
Bioretention Facility	X	X	X
Bioswale [4]	X	X	X
Constructed Wetlands	X	X	X
Drywell	X		
Green Roof	X		X
Infiltration Trench	X		
Permeable Pavement	X		
Storage Below Detention Basin Outlet		X	
Vegetated Filter Strip	X		X
Water Reuse System		X	

1. A void ratio of 0.36 shall be used to calculate volume in CA-1 or or CA-7 gradation, 0.25 for pea gravel or CA-16.
2. Storage calculated using average-end method between surface elevation and elevation of overflow grate/check dam.
3. Porosity of 0.25 shall be used to calculate volume in growing media.
4. Surface storage only if check dams are installed.

TECHNICAL GUIDANCE MANUAL	7/1/15
VOLUME CONTROL STORAGE MATRIX	STD. DWG. NO.17
	PAGE NO. 18

PROPOSED SEWER LINE WITH 18" MINIMUN VERTICAL SEPARATION ABOVE EXISTING WATER MAIN



GUIDELINES

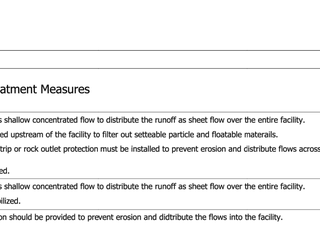
1. IF SELECT GRANULAR BACKFILL EXISTS: REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT
2. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" FEET.
3. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;

   B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION



GUIDELINES

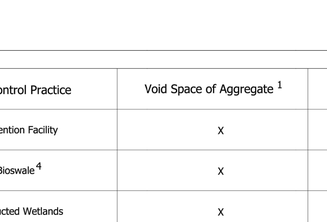
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.
2. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;

   B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION



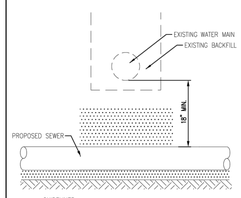
GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION



GUIDELINES

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION, **NOT ALLOWED.**

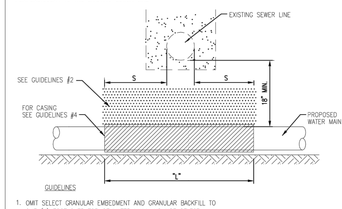
NOT ALLOWED*
MUST MAINTAIN 18" VERTICAL SEPARATION

*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE

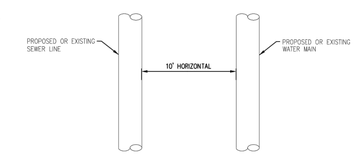
*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.



GUIDELINES

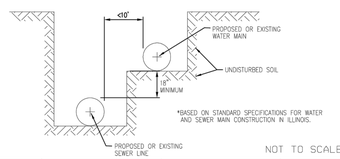
1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

PER IEPA, WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED



PLAN VIEW

PER IEPA, WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED **LESS THAN 10 FEET** FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY



*BASED ON STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	7/1/15
WATER AND SEWER SEPARATION REQUIREMENTS (PER IEPA)	STD. DWG. NO. 41
	PAGE NO. 42

1. MANHOLES TO HAVE PRECAST "RUBBER BOOTS" CONFORMING TO ASTM C-923 AT ALL PIPE CONNECTIONS.
2. SANITARY MANHOLES SUBJECT TO SATURATION SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT BOLTED DOWN MANHOLE COVERS.
3. MASTIC SEALANT OR RUBBER GASKET SEAL MUST BE APPLIED BETWEEN CONCRETE & FLANGE OF FRAME BEFORE LID BOLTS ARE TIGHTENED.
4. SAFETY LANDINGS REQUIRED FOR MANHOLES GREATER THAN 28 FEET DEPTH (RIM TO INVERT). MAXIMUM VERTICAL SPACING OF SAFETY LANDING IS 20 FEET.
5. FOR DROP CONNECTIONS, USE DROP CONNECTION MANHOLE DETAIL.
6. FOR ONLINE CONNECTIONS GREATER THAN 15 INCHES, USE DOGHOUSE MANHOLE DETAIL.

ALT MATERIALS FOR WALLS	D	T (MIN.)
PRECAST REINFORCED CONCRETE SECTION	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN
CAST-IN-PLACE CONCRETE	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	7/1/15
TYPICAL SANITARY MANHOLE "A" AND "B" DETAIL	STD. DWG. NO.39
	PAGE NO. 40

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

MWRD DETAILS

Wild Fork™
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
C6.3

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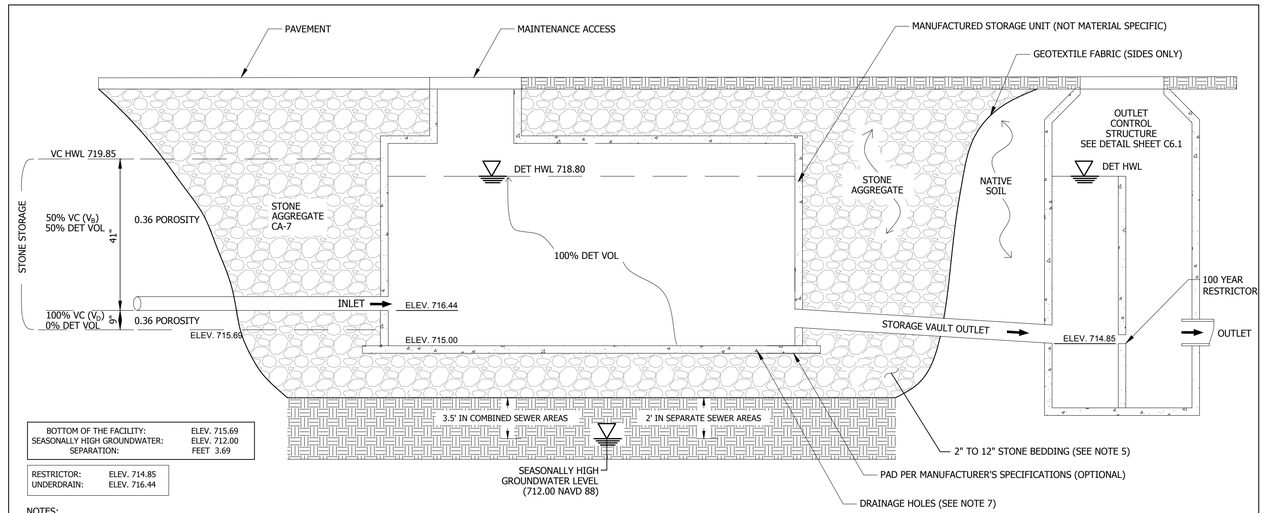


BOTTOM OF THE FACILITY:	ELEV. 715.69
SEASONALLY HIGH GROUNDWATER:	ELEV. 712.00
SEPARATION:	FEET 3.69

RESTRICTOR:	ELEV. 714.85
UNDERDRAIN:	ELEV. 716.44

NOTES:

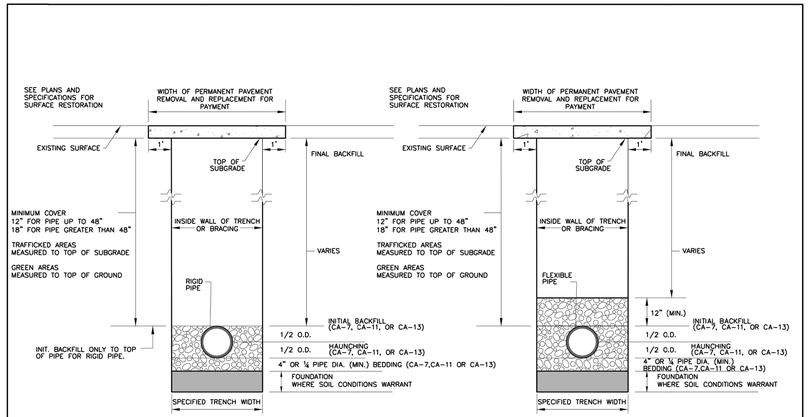
1. THE PERIMETER OF THE VOLUME CONTROL FACILITY SHALL MAINTAIN THE MINIMUM HORIZONTAL SEPARATION DISTANCE OF: 10-FEET FROM FOUNDATIONS, UNLESS WATERPROOFED; 20-FEET FROM ROADWAY GRAVEL SHOULDER; AND 100-FEET FROM POTABLE WATER WELLS, SEPTIC TANKS/FIELDS, OR OTHER UNDERGROUND TANKS.
2. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED WITHIN THE VOLUME CONTROL FACILITY. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED BELOW THE FOOTPRINT OF THE VOLUME CONTROL FACILITY. WHEN LOCAL CONDITIONS PREVENT THE SEWER FROM BEING LOCATED OUTSIDE THE FOOTPRINT OF THE FACILITY THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN QUALITY STANDARDS, AND IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
3. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF THE VOLUME CONTROL FACILITY AND SEASONALLY HIGH GROUNDWATER LEVEL.
4. STONE STORAGE OPTIONS ARE IDOT CA-1, IDOT CA-3, IDOT CA-7, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
5. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. NO MORE THAN 1 UNDERDRAIN EVERY 30 FEET ON CENTER. MINIMUM UNDERDRAIN BEDDING OF 2 INCHES, MAXIMUM OF 12 INCHES.
6. APPROPRIATE MAINTENANCE ACCESS SHALL BE PROVIDED TO ENSURE THAT EACH SEGMENT OF THE SYSTEM IS ACCESSIBLE BY A VACUUM, JET HOSE, OR A TELEVISING DEVICE. ACCESS IS RECOMMENDED NEAR ALL ENTRY/EXIT POINT FOR SEDIMENT REMOVAL. EGRESS RUNGS SHALL BE PROVIDED FOR SYSTEMS DEEPER THAN 42-INCHES.
7. DRAINAGE OPENINGS SHOULD COVER AT LEAST 3% OF THE PAD'S FOOTPRINT. DESIGNER / MANUFACTURER RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE MANUFACTURED STORAGE UNIT.
8. COMBINED SEWER AREAS REQUIRE BACKFLOW PREVENTER.
9. AVOID COMPACTION OF NATIVE SOILS WITHIN THE VOLUME CONTROL FOOTPRINT TO MAXIMIZE INFILTRATION.

VOLUME CONTROL SUMMARY

VOLUME TYPE	DEPTH	POROSITY	STORAGE VOLUME	VOLUME PROVIDED
V_A : VAULT STORAGE (BELOW THE OUTLET)	----	1.00	1.00 X 0.50 X V_A	----
V_B : COARSE AGGREGATE (ABOVE U.D. INVERT)	41"	0.36	0.50 X 0.36 X V_B	0.032 AC-FT
V_C : VAULT STORAGE (BELOW U.D. INVERT)	----	1.00	1.00 X V_C	----
V_D: COARSE AGGREGATE (BELOW U.D. INVERT)	9"	0.36	0.36 X V_D	0.014 AC-FT
* VOLUME INTENDED FOR DETENTION NOT INCLUDED *			TOTAL	0.046 AC-FT

NOT TO SCALE

	TECHNICAL GUIDANCE MANUAL	10/2/2018
	UNDERGROUND VAULT VOLUME CONTROL/DETENTION TYPICAL DETAIL	STD. DWG. NO.XX
		PAGE NO.XX



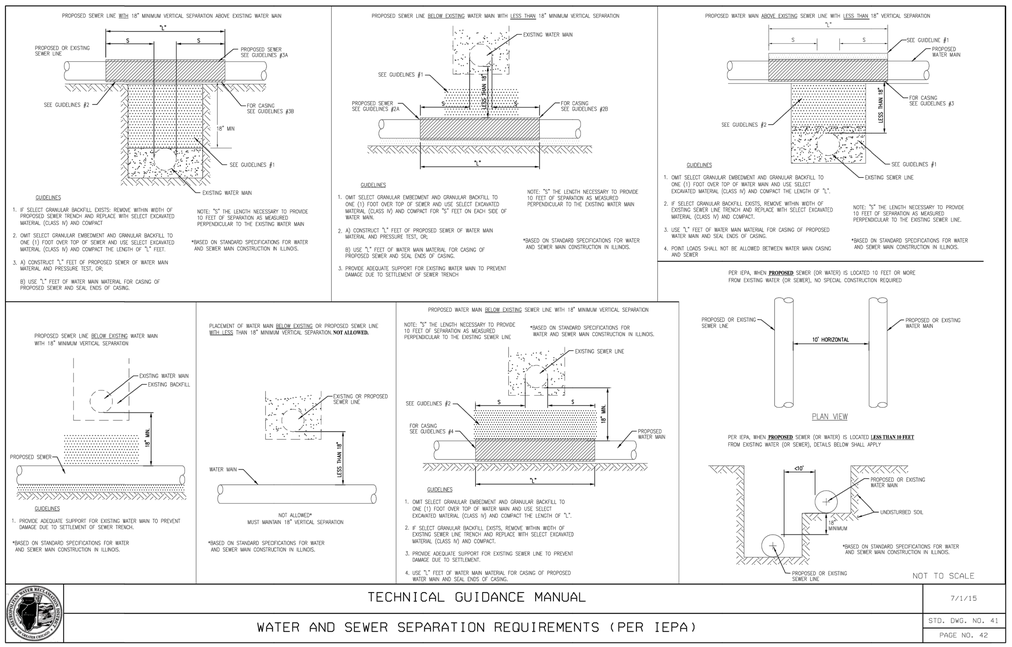
RIGID PIPE INSTALLATION DETAIL

FLEXIBLE PIPE INSTALLATION DETAIL

NOTES:
1. FOR QUALIFIED SEWER CONSTRUCTION ONLY.
2. SHORING, OR EQUIVALENT PROTECTIVE SYSTEM, REQUIRED FOR TRENCHES OF 5' DEPTH OR GREATER, OR AS REQUIRED BY MUNICIPALITY.

NOT TO SCALE

	TECHNICAL GUIDANCE MANUAL	7/1/15
	RIGID AND FLEXIBLE PIPE INSTALLATION DETAIL	STD. DWG. NO. 34
		PAGE NO. 35



NOT TO SCALE

	TECHNICAL GUIDANCE MANUAL	7/1/15
	WATER AND SEWER SEPARATION REQUIREMENTS (PER IEPA)	STD. DWG. NO. 41
		PAGE NO. 42

REVISIONS

NO.	DATE	DESCRIPTION
1	09-20-22	SUBMITTED FOR VILLAGE REVIEW
2	10-21-22	SUBMITTED FOR BID AND PER VILLAGE REVIEW

ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

MWRD DETAILS

Wild Fork™
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
C6.4

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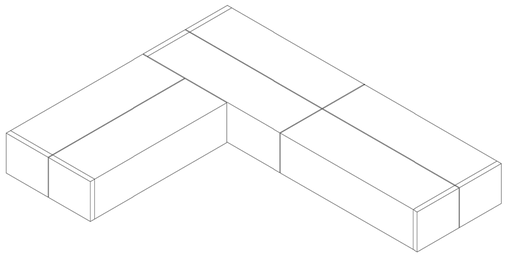
StormTrap
MODULAR CONCRETE STORMWATER MANAGEMENT



WILD FORK FOODS
ORLAND PARK, IL

SHEET INDEX

STORMTRAP CONTACT INFORMATION

STORMTRAP SUPPLIER: STORMTRAP
CONTACT NAME: KATIE OAKES
CELL PHONE: 630-470-5214
SALES EMAIL: KOAKES@STORMTRAP.COM

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ENGINEER INFORMATION:

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WOODRIDGE, IL 60517
630-724-9200

PROJECT INFORMATION:

WILD FORK FOODS
ORLAND PARK, IL

CURRENT ISSUE DATE: 10/11/2022

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SCALE: NTS

SHEET TITLE: COVER SHEET

SHEET NUMBER: 0.0

STRUCTURAL DESIGN LOADING CRITERIA

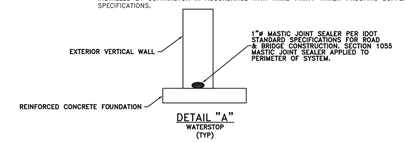
LIVE LOADING: **FIRE TRUCK OUTRIGGER LOADING 75 PSI ON A 2'x2' PAD**
GROUND WATER TABLE: BELOW INVERT OF SYSTEM
SOIL BEARING PRESSURE: 3000PSF
SOIL DENSITY: 120 PCF
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE: 35 PSF / FT.
EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE: 80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES: ASTM C857
ACI-318
BACKFILL TYPE: SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION

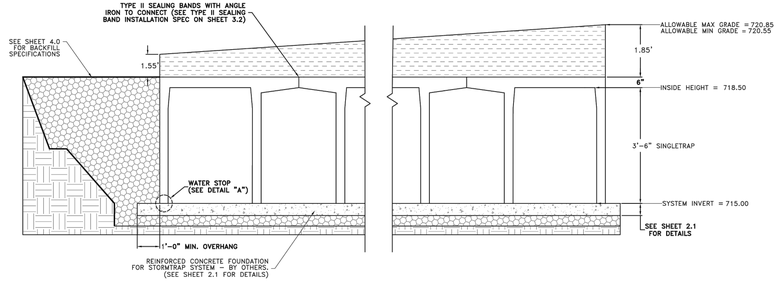
WATER STORAGE PROV: 1,301.52 CUBIC FEET
UNIT HEADROOM: 3'-6" SINGLETRAP

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.55'MAX. 1.85' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.
5. SYSTEM DESIGN INTENT IS TO CONTAIN WATER AND / OR PREVENT GROUNDWATER MIGRATION INTO THE SYSTEM AND WILL NOT BE SUBJECT TO LEAKAGE TESTING. A THIRD PARTY WATER PROOFING SOLUTION IS REQUIRED FOR SEALING OF SYSTEM / MODULE JOINTS AND SEAMS. SOLUTION TO BE PROVIDED AND INSTALLED BY CONTRACTOR IN ACCORDANCE WITH THIRD PARTY WATER-PROOFING SUPPLIER'S PRODUCT SPECIFICATIONS.



DETAIL "A"
WATERSTOP (TYP)



3'-6" SINGLETRAP

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SHEET TITLE: SINGLETRAP DESIGN CRITERIA

SHEET NUMBER: 1.0

BILL OF MATERIALS

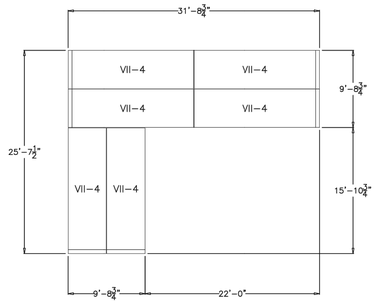
QTY.	UNIT TYPE	DESCRIPTION	WEIGHT
0	I	3'-6" SINGLETRAP	0
0	II	3'-6" SINGLETRAP	0
0	III	3'-6" SINGLETRAP	0
0	IV	3'-6" SINGLETRAP	0
6	VII-4	3'-6" SINGLETRAP	11,914
2	SPIV	3'-6" SINGLETRAP	VARIES
0	T2 PANEL	6" THICK PANEL	0
0	T4 PANEL	6" THICK PANEL	0
6	T7 PANEL	6" THICK PANEL	1449
2	JOINTWRAP	150' PER ROLL	
24	JOINTTAPE	14.5' PER ROLL	
TOTAL PIECES = 6			
TOTAL PANELS = 6			
HEAVIEST PICK WEIGHT = 11,914			

LOADING DISCLAIMER:

STORMTRAP IS NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADINGS FROM NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY.

TREE LOADING DISCLAIMER:

THE STORMTRAP SYSTEM HAS NOT BEEN DESIGNED TO SUPPORT THE ADDITIONAL WEIGHT OF ANY TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONTAINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACE AROUND OR ON TOP OF THE SYSTEM.



DESIGN CRITERIA
ALLOWABLE MAX GRADE = 720.85
ALLOWABLE MIN GRADE = 720.55
INSIDE HEIGHT ELEVATION = 718.50
SYSTEM INVERT = 715.00

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SP - INDICATES A MODULE WITH MODIFICATIONS.
5. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.

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PROJECT INFORMATION:
WILD FORK FOODS
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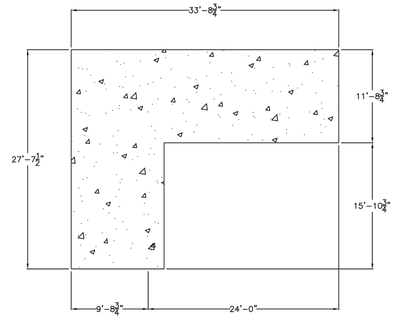
SCALE: NTS

SHEET TITLE: SINGLETRAP SYSTEM LAYOUT

SHEET NUMBER: 2.0



CONCRETE FOUNDATION NOTES:
1. CONCRETE FOUNDATION TO BE SUPPLIED AND INSTALLED BY OTHERS.
2. CONCRETE STRENGTH @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX SLUMP.
3. NET ALLOWABLE SOIL PRESSURE AS INDICATED ON SHEET 1.0.
4. SOIL CONDITIONS TO BE VERIFIED ON SITE BY OTHERS.
5. REBAR: ASTM A615 GRADE 60, BLACK BAR.
6. DIMENSION OF FOUNDATION MUST HAVE 1'-0" OVERHANG BEYOND EXTERNAL FACE OF MODULE.
7. DIMENSION OF STORMTRAP SYSTEM ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
8. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
9. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.

STORMTRAP FOUNDATION DETAIL

FIRETRUCK OUTRIGGER LOADING - (ACI 318, ST2) 75 PSI ON 24"x24" PAD

MAXIMUM SYSTEM COVER	SLAB THICKNESS	CONCRETE STRENGTH	REINFORCEMENT (BOTH DIRECTIONS)	"A" CLEAR COVER
1'-6" - 2'-0"	8"	4000 PSI	#4 @ 12" O.C.	3.5"
2'-1" - 3'-0"	8"	4000 PSI	#4 @ 12" O.C.	3.5"
3'-1" - 4'-0"	8"	4000 PSI	#5 @ 18" O.C.	3.375"
4'-1" - 5'-0"	8"	4000 PSI	#5 @ 18" O.C.	3.375"
5'-1" - 6'-0"	8"	4000 PSI	#5 @ 16" O.C.	3.375"
6'-1" - 7'-0"	8"	4000 PSI	#5 @ 16" O.C.	3.375"
7'-1" - 8'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"
8'-1" - 9'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"
9'-1" - 10'-0"	9"	4000 PSI	#5 @ 12" O.C.	3.875"

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SHEET TITLE: SINGLETRAP FOUNDATION LAYOUT

SHEET NUMBER: 2.1

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ORIGINAL ISSUE DATE: 09-20-2022

PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

STORM TRAP DETAILS

Wild Fork
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TMGA

V3

DRAWING NO.
C6.5

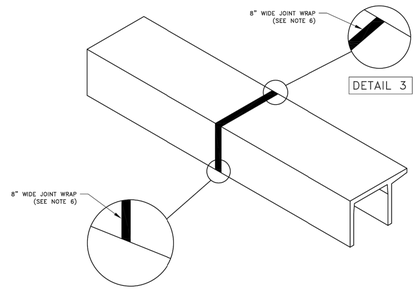
STORMTRAP INSTALLATION SPECIFICATIONS

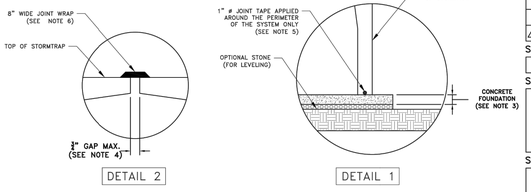
1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891, STANDARD FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES, THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. STORMTRAP MODULES SHALL BE PLACED ON A LEVEL CONCRETE FOUNDATION (SEE SHEET 2.1) WITH A 1"-0" OVERHANG ON ALL SIDES THAT SHALL BE POURED IN PLACE BY INSTALLING CONTRACTOR. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS TO ENSURE THAT THE SOIL BEARING PRESSURE MEETS OR EXCEEDS THE STRUCTURAL DESIGN LOADING CRITERIA AS SPECIFIED ON SHEET 1.0.
4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3" (SEE DETAIL 2). IF THE SPACE EXCEEDS 3", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
5. THE PERIMETER HORIZONTAL JOINT BETWEEN THE STORMTRAP MODULES AND THE CONCRETE FOUNDATION SHALL BE SEALED TO THE FOUNDATION WITH PRE-FORMED MASTIC JOINT SEALER ACCORDING TO ASTM C891, 8.8 AND 8.12 (SEE DETAIL 1). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL.
6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 3, & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL, THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:

6.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.

6.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.

7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
9. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.





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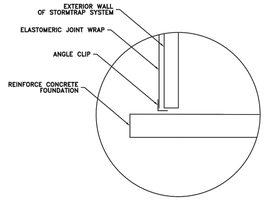
NTS

SHEET TITLE:
SINGLETRAP INSTALLATION SPECIFICATIONS

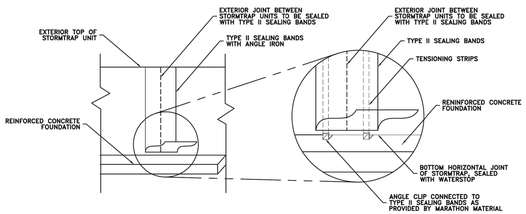
SHEET NUMBER:
3.0

TYPE II SEALING BAND INSTALLATION SPECIFICATION

ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH APPROVED ASTM C877, TYPE II, SEALING BANDS. PLACE ANGLE IRON UNDER THE EXTERIOR WALL OF THE STORMTRAP UNIT AS THE UNIT IS BEING PLACED ONTO THE CONCRETE FOUNDATION. ONCE THE UNIT IS SET INTO PLACE THE ANGLE IRON WILL BE HELD INTO PLACE BY THE WEIGHT OF THE UNIT. AFTER SETTING THE ADJACENT UNIT, THE SEALING BAND CAN BE TIGHTENED USING THE RATCHETS PROVIDED BY THE MANUFACTURER. PLACE SEALING BANDS UNDER WATER STOP PLACED AROUND THE PERIMETER OF THE SYSTEM WILL SEAL EXTERIOR JOINTS TO CONCRETE PAD. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS SPECIFICATIONS.



TYPE II SEALING BAND DETAIL



TYPE II SEALING BAND INSTALLATION
SEE NOTE ABOVE FOR INSTALLATION SPECIFICATION

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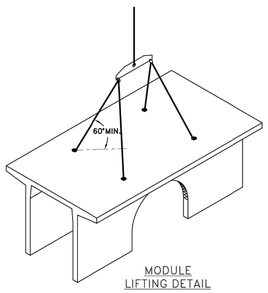
SHEET TITLE:
MAC-WRAP DETAIL

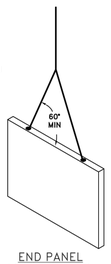
SHEET NUMBER:
3.2

STORMTRAP MODULE LIFTING INSTALLATION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE (SEE RECOMMENDATIONS 2 & 3).
2. MINIMUM 7'-0" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.



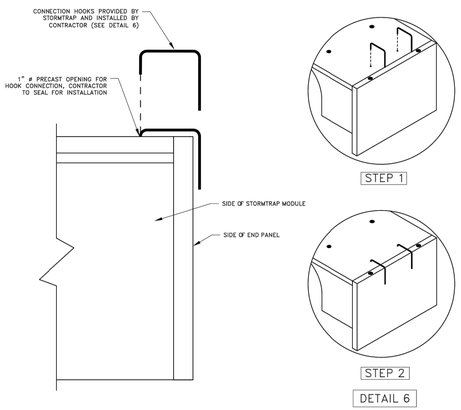
MODULE LIFTING DETAIL



END PANEL LIFTING DETAIL

END PANEL ERECTION/INSTALLATION NOTES

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



PANEL CONNECTION ELEVATION VIEW

STEP 1

STEP 2

DETAIL 6

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ENGINEER INFORMATION:
V3 COMPANIES
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PROJECT INFORMATION:
WILD FORK FOODS
ORLAND PARK, IL

CURRENT ISSUE DATE:
10/11/2022

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SCALE:
NTS

SHEET TITLE:
SINGLETRAP INSTALLATION SPECIFICATIONS

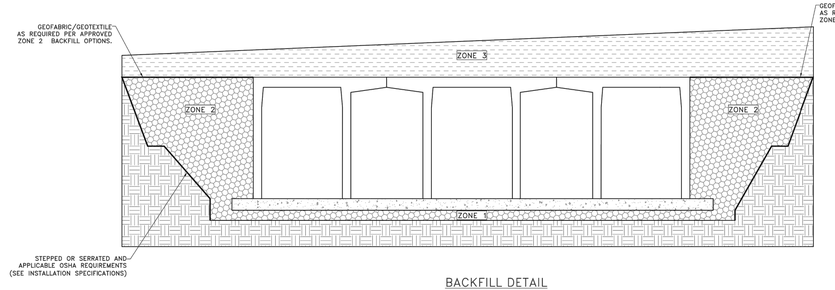
SHEET NUMBER:
3.1

ZONE CHART		
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1	FOUNDATION AGGREGATE	#5 (2") STONE AGGREGATE (SEE NOTE 4 FOR DESCRIPTION)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS	
OPTION	REMARKS
2" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

FILL DEPTH	TRACK WIDTH	MAX VEHICLE WEIGHT (KIPS)	MAX GROUND PRESSURE
12"	12"	51.8	1690 psf
	18"	56.1	1219 psf
	24"	68.1	1111 psf
	30"	76.7	1000 psf
	36"	85.0	924 psf

NOTE:
TRACK LENGTH NOT TO EXCEED 15'-4".
ONLY TWO TRACKS PER VEHICLE.



BACKFILL DETAIL

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. STONE AGGREGATE FOUNDATION IN ZONE 1 IS RECOMMENDED FOR LEVELING PURPOSES ONLY (OPTIONAL).

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SINGLETRAP BACKFILL SPECIFICATIONS

SHEET NUMBER:
4.0

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PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

STORM TRAP DETAILS

Wild Fork™ MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

V3

DRAWING NO.
C6.6

RECOMMENDED ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 3'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED.
2. PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFC OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

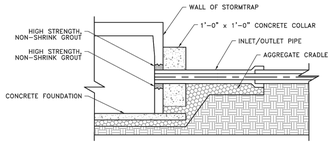
RECOMMENDED PIPE OPENING SPECIFICATION

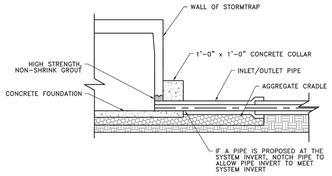
1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. MAXIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREFERRED OPENING SIZE # 36" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-0" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

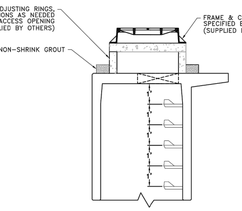
1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE/REQUIREMENTS.

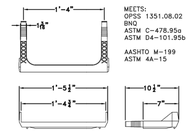




PIPE CONNECTION DETAIL



RISER/STAIR DETAIL



STEP DETAIL

*** NOTICE *** 03-25-2022

DUE TO CURRENT INCONSISTENCIES IN THE 16" STEP SUPPLY, STORMTRAP MAY SUBSTITUTE THE 16" STEP WITH THE CLOSEST ALTERNATIVE LENGTH STEP UNTIL THE SUPPLY CHAIN ISSUE IS RESOLVED.

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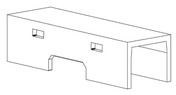
SHEET TITLE:
RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS

SHEET NUMBER:
5.0



TYPE VII-4

TYPE VII END PANEL

NOTES:
1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP – INDICATES A MODULE WITH MODIFICATIONS.
3. P – INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

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SHEET TITLE:
SINGLETRAP MODULE TYPES

SHEET NUMBER:
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PROJECT NO: 20525.012
PROJECT MANAGER: BRP
DESIGNED BY: RA
DRAWN BY: DB

STORM TRAP DETAILS

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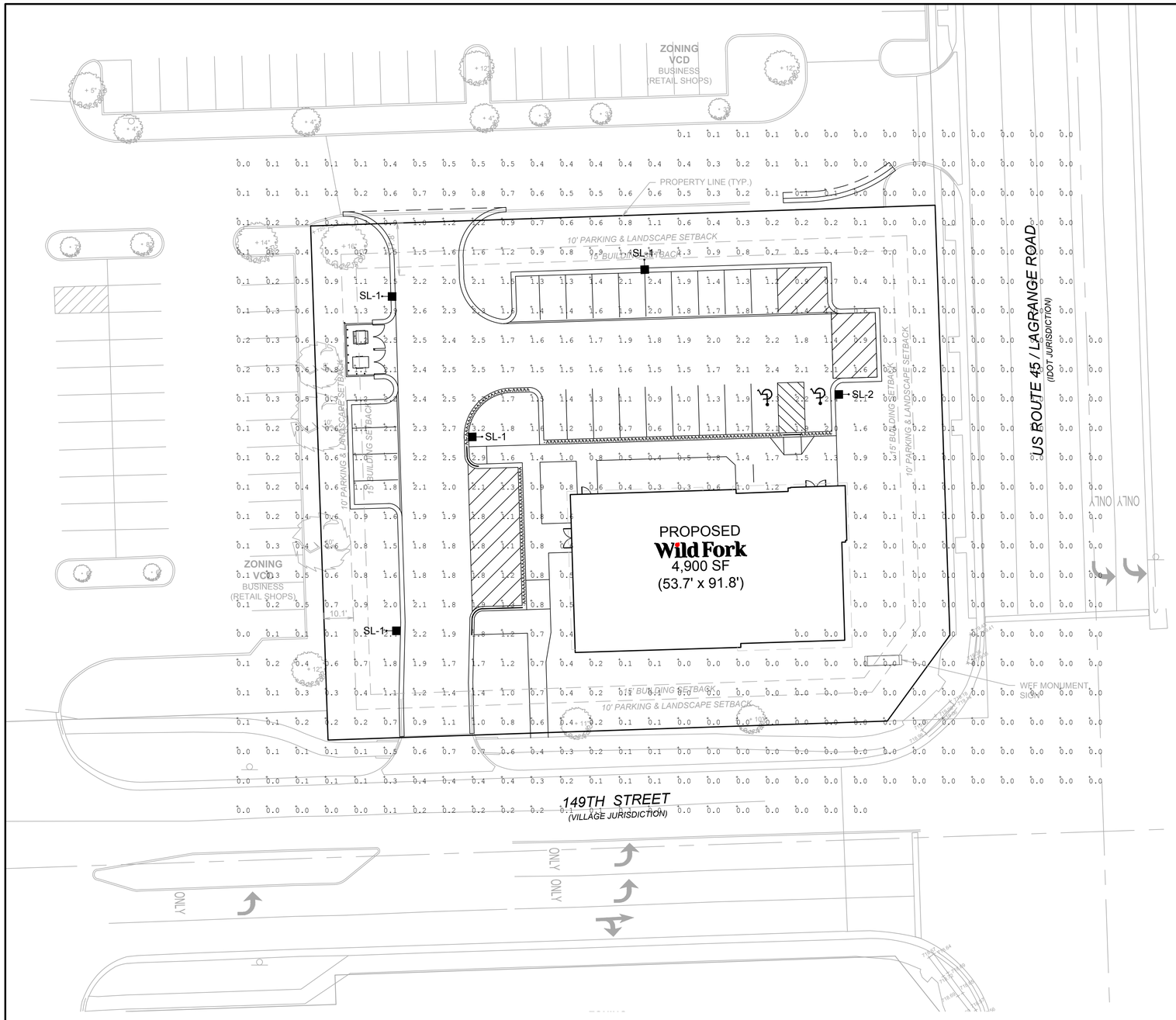
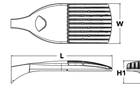


D-Series Size 1
LED Area Luminaire

Buy American



Specifications

EPA: 1.01 ft² (0.09 m²)
Length: 33" (83.8 cm)
Width: 13" (33.0 cm)
Height H1: 7-1/2" (19.0 cm)
Height H2: 3-1/2"
Weight (max): 27 lbs (12.2 kg)

Introduction

The modern styling of the D-Series is striking yet unobtrusive – making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information **EXAMPLE:** DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P4[1] P7[1] P2 P5[1] P8 P3 P6[1] P9[1] **Rotated optics** P10[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short[1] T5S Type V short[1] T5M Type V medium[1] T5W Type V wide[1] BLC Backlight control[2] LCCO Left corner cutoff[2] RCCO Right corner cutoff[2]	MVOLT[1] XVOLT 120V[1] 208V[1] 240V[1] 277V[1] 347V[1] 480V[1]	**Shipped included** SPA Square pole mounting RPA Round pole mounting[3] WBA Wall bracket[3] SPUMBA Square pole universal mounting adaptor[3] RPUMBA Round pole universal mounting adaptor[3] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[3,4]

Control options	Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled[5] PIRHN Network, high/low motion/ambient sensor[6] PER NEMA twist-lock receptacle only (controls ordered separately)[7] PER5 Five-pin receptacle only (controls ordered separately)[7,8] PER7 Seven-pin receptacle only (controls ordered separately)[7,9] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[7] DS Dual switching[6,10,11,12]	**Shipped installed** HS House-side shield[13] SF Single fuse (120, 277, 347V)[7] DF Double fuse (208, 240, 480V)[7] L90 Left rotated optics[14] R90 Right rotated optics[14] HA -30°C ambient operations[15] BAA Buy American(n) Act Compliant **Shipped separately** BS Bird spikes[16] EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

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DSX1 LED
Rev. 01/19/21
Page 1 of 8

NOTES:

1. THE LIGHT POLE LOCATIONS ON THIS PLAN SHOW THE RECOMMENDED PLACEMENT. ADJUSTMENTS TO THESE LOCATIONS MAY BE REQUIRED TO ACCOMMODATE SITE CONDITIONS.
2. CALCULATION AREAS ABOVE ARE TAKEN WITHIN THE LIMITS OF PROPOSED PARKING LOT PAVEMENT AS SHOWN ON THIS PLAN.
3. THE PHOTOMETRIC PLAN WAS PREPARED USING THE FIXTURES IN THE SCHEDULE ON THIS SHEET. NO SUBSTITUTIONS ARE PERMITTED WITHOUT APPROVAL BY THE ENGINEER.
4. PROVIDED ILLUMINANCE VALUES ARE MEASURED AT AN ELEVATION OF +3.5 FEET ABOVE THE GROUND.

CALCULATED LIGHTING ILLUMINANCE LEVELS (FOOT CANDLES)					
	AVERAGE	MAX	MIN	AVG/MIN	MAX/MIN
PARKING LOT	1.54	2.5	0.7	2.20	3.57

PROPOSED SITE LIGHTING FIXTURE SCHEDULE							
SYMBOL	DESCRIPTION	QUANTITY	LLF	COLOR	MOUNTING	CONFIG.	CATALOG NO. & NOTES
SL-1	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LIGHT, LUMINAIRE POWER PACKAGE P2, FORWARD THROW MEDIUM DISTRIBUTION	4	1.00	4000K	25'-0" MOUNTING HEIGHT	1 FIXTURE	DSX1-LED-P2-40K-TFTM-MVOLT
SL-2	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LIGHT, LUMINAIRE POWER PACKAGE P2, FORWARD THROW MEDIUM DISTRIBUTION WITH HOUSE-SIDE SHEILD	1	1.00	4000K	25'-0" MOUNTING HEIGHT	1 FIXTURE	DSX1-LED-P2-40K-TFTM-MVOLT-HS

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

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PROJECT NO: 20525.012
PROJECT MANAGER: JB
DESIGNED BY: JB
DRAWN BY: JR

PRELIMINARY PHOTOMETRIC PLAN

Wild Fork™
MEAT & SEAFOOD MARKET
ORLAND PARK ILLINOIS

TM&A

DRAWING NO.
P1.0

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