RIZZA ACURA

FINAL ENGINEERING PLANS

8754 W 159TH STREET

ORLAND PARK, COOK COUNTY, ILLINOIS

(ORLAND TWP PIN #'S 27-14-300-068, 27-14-300-070, 27-14-300-069)

Contact the Metropolitan Water Reclamation District of Greater Chicago 2 days before starting work.

P (708) 588-4055
E WMOJobStart@mwrd.org

DESCRIPTION: ISSUED FOR REVIEW
DATE: 05-22-2023

MASTER NOTES

1. ALL ITEMS OF THIS PROJECT SHALL BE GOVERNED BY SPECIFICATIONS INCLUDED IN THE DOCUMENTS LISTED BELOW:

A. VILLAGE OF ORLAND PARK STANDARDS SPECIFICATIONS.
B. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED BY SAID DEPARTMENT (LATEST REVISION*) AND HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS".
C. "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
D. "ILLINOIS URBAN MANUAL" (LATEST REVISION*) BY ASSOCIATION OF ILLINOIS SOIL & WATER CONSERVATION DISTRICTS.
E. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.
F. "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS" BY ILLINOIS DEPARTMENT OF TRANSPORTATION.
G. "ILLINOIS ACCESSIBILITY CODE", (LATEST EDITION*).

*LATEST REVISION IN EFFECT ON THE DATE OF THESE PLANS

2. PRIOR TO BID, THE CONTRACTOR SHALL VERIFY CONFORMANCE BETWEEN PLANS AND THE ABOVE REFERENCED CODES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BID.

3. IN THE EVENT OF A CONFLICT BETWEEN THESE VARIOUS STANDARDS, MUNICIPAL STANDARDS SHALL APPLY.

4. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.

5. ALL WORK PERFORMED SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF OSHA.

6. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING JULIE 1-630-554-3242 AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS. ALL UTILITIES MUST BE STAKED/LOCATED BEFORE CONSTRUCTION.

7. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE MUNICIPALITY PUBLIC WORKS DEPARTMENT 708-403-6350 A MINIMUM OF 48 HOURS BEFORE CONSTRUCTION ACTIVITIES. A 48-HOUR NOTICE MUST BE PROVIDED FOR INSPECTIONS AND TESTS. CITY STAFF MUST OPERATE ALL WATERMAIN VALVES AND HYDRANTS ONLY.

8. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL SURVEYING MONUMENTS UNTIL THE OWNER, THEIR AGENT OR A LICENSED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

9. THE CONTRACTOR SHALL BE AWARE OF POTENTIAL CONFLICTS WITH EXISTING UTILITIES AS MAY BE INDICATED ON THE PLANS. THESE AREAS SHALL BE EXCAVATED TO DETERMINE ELEVATIONS BEFORE BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.

10. SAWING OF REMOVAL ITEMS AS NOTED IN THE PLANS OR AS REQUIRED BY THE ENGINEER SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT OF THE ITEM BEING REMOVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

11. ALL ROAD SIGNS, STREET SIGNS AND TRAFFIC SIGNS WHICH NEED TO BE RELOCATED OR MOVED DUE TO CONSTRUCTION SHALL BE TAKEN DOWN AND STORED BY THE CONTRACTOR AT HIS OWN EXPENSE EXCEPT THOSE WHICH THE PERMIT AGENCY SHALL REQUIRE TO BE TEMPORARILY RESET UNTIL COMPLETION OF CONSTRUCTION OPERATIONS. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, RESET ALL SAID SIGNS AT THE LOCATIONS DESIGNATED BY THE PERMIT AGENCY ENGINEER.

12. THE CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE OWNER'S ENGINEER AT A COST TO BE BORNE BY THE CONTRACTOR THAT DESTROYED THE STAKES.

13. CONTRACTOR SHALL USE CARE NEAR ANY AND ALL EXISTING ITEMS WHICH ARE NOT INDICATED TO BE REMOVED OR MODIFIED. ANY DAMAGE DONE TO THESE ITEMS BY CONTRACTORS OPERATIONS SHALL BE REPAIRED AND/OR RESTORED BY THE CONTRACTOR AT THE CONTRACTORS OWN EXPENSE.

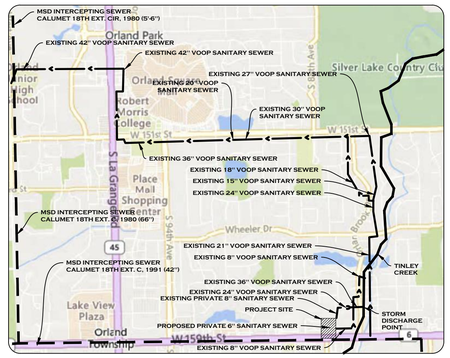
14. THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE OWNER, THE PERMIT AGENCY AND ITS OFFICERS, EMPLOYEES, AND AGENTS, AND THE OWNER'S ENGINEERS, FROM AND AGAINST ALL LOSSES, CLAIMS, DEMANDS, PAYMENTS, SUITS, ACTIONS, RECOVERIES AND JUDGMENT OF EVERY NATURE AND DESCRIPTION BROUGHT OR RECOVERED AGAINST THEM, BY REASON OF ANY ACT OR OMISSION OF SAID CONTRACTOR, HIS AGENTS OR EMPLOYEES, IN THE EXECUTION OF THE WORK OR IN THE GUARDING OF IT.

15. BURNING ON THE SITE IS NOT PERMITTED.

16. ALL IMPROVEMENTS SHOWN ON THE PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR .

VICINITY MAP

(NOT TO SCALE)



MWRD INTERCEPTOR VICINITY MAP

(NOT TO SCALE)

LEGEND
- STORM SEWER
- SANITARY SEWER
- MWRD INTERCEPTOR

SYMBOL LEGEND

PROPOSED		EXISTING
	PROPERTY LINE	
	BUILDING SETBACK LINE	
	EASEMENT LINE	
	DEPRESSED CURB	
C	STORM SEWER	C
S	SANITARY SEWER	S
W	WATER MAIN	W
G	GAS LINE	G
E	ELECTRIC LINE	E
T	TELEPHONE LINE	T
OH	OVERHEAD WIRES	OH
	FENCE LINE	
SF	SILT FENCE	
720	GRADING CONTOUR	720
	MANHOLE	
	STORM CURB FRAME & GRATE	
	STORM MANHOLE	
	STORM CATCH BASIN	
	STORM FLARED END SECTION	
	SANITARY MANHOLE	
	VALVE VAULT	
	FIRE HYDRANT	
B	BUFFALO BOX	B
G	GAS VALVE	G
E	ELECTRIC STRUCTURE	E
E	TRANSFORMER	E
	POWER POLE	
	PEDESTAL	
	TRAFFIC SIGNAL MANHOLE	
	DRAINAGE FLOW ARROW	
	OVERFLOW ROUTE	
	AIR CONDITIONER	A/C
	SINGLE POLE SIGN	
	DOUBLE POLE SIGN	
	STREET LIGHT	
BOL	BOLLARD	BOL
C.O.	CLEAN OUT	C.O.
D.S.	DOWN SPOUT	D.S.
	TREE	
	EROSION CONTROL BLANKET (SEE SHEET 4)	
	FINAL STABILIZATION (SEED) (SEE SHEET 4)	
	CONCRETE SIDEWALK	
	NEW HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)	
	STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)	
	PERMEABLE BRICK PAVEMENT (SEE DETAIL SHEET)	

TABLE OF CONTENTS

PROJECT TEAM

DEVELOPER	***JOE RIZZA ENTERPRISES, INC.*** 8150 W. 159TH STREET ORLAND PARK, ILLINOIS 60462
ARCHITECT	***SIMON DESIGN GROUP*** 500 LAKE COOK ROAD DEERFIELD, IL 60015 PH (847) 572.3002
CIVIL ENGINEER	***MeritCorp Group, LLC*** 4222 MERIDIAN PARKWAY STE 112 AURORA, IL 60504 Ph.(630)554.6655

NOTE

1. DETAILS AND NOTES WITHIN THESE PLANS, ALONG WITH NOTATIONS TO SUPPLEMENT SAME ARE CRUCIAL TO THE PROPER CONSTRUCTION OF THE DESIGN CONTAINED HEREIN.

2. CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH ALL CONDITIONS PRIOR TO ENGAGING IN A CONTRACT TO PERFORM WORK AS PROPOSED HEREIN.

3. PLANS ARE NOT VALID WITHOUT ORIGINAL SIGNATURE AND SEAL OF THE ENGINEER.

BENCHMARKS

ELEVATIONS SHOWN ARE RELATIVE TO NAVD'88.

SITE BM #1:
UPPER FLANGE BOLT ON FIRE HYDRANT. LOCATED APPROXIMATED 70' NORTH OF THE NORTH CURB LINE OF 159TH STREET ON WEST SIDE OF DRIVE JUST EAST OF THE PORSCHE BUILDING, AS NOTED HEREON. ELEV=713.80'

ABBREVIATIONS

AGG.	AGGREGATE GRAVEL	F-F	FACE TO FACE	R	RADIUS
ALT	ALTERNATE	FES	FLARED END SECTION	RCP	REINFORCED CONCRETE PIPE
B.A.M.	BIT. AGG. MIXTURE	F/F	FINISHED FLOOR	R.O.W	RIGHT OF WAY
B-B	BACK TO BACK	FL	FLOW LINE	R.D.	ROOF DRAIN
BB	BUFFALO BOX	FG	FINISHED GRADE	SAN.	SANITARY
BC	BACK OF CURB	HDWL	HEADWALL	STMH	STORM MANHOLE
BIT.	BITUMINOUS CONCRETE	HH	HAND HOLE	STM	STORM
BM	BENCHMARK	H.W.L.	HIGH WATER LEVEL	STA.	STATION
B.O.	BY OTHERS	HYD	HYDRANT	SF	SQUARE FEET
B/P	BOTTOM OF PIPE	INL	INLET	SY	SQUARE YARD
B/W	BOTTOM OF WALL	INV	INVERT	TBR	TO BE REMOVED
CB	CATCH BASIN	I.P.	IRON PIPE	T/C	TOP OF CURB
CATV	CABLE TELEVISION	MAX	MAXIMUM	T/F	TOP OF FOUNDATION
CE	COMM. ED.	M.E.	MATCH EXISTING	T/P	TOP OF PIPE
CL	CENTER LINE	MH	MANHOLE	T/W	TOP OF WALL
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	TRANS	TRANSFORMER
CS	CENTER OF STRIPE	N.W.L.	NORMAL WATER LEVEL	VV	VALVE VAULT
C.O.	CLEAN OUT	PED	PEDESTAL	W.M.	WATER MAIN
CONC.	CONCRETE	PC	POINT OF CURVE		
DIA.	DIAMETER	PCC	POINT OF COMPOUND CURVE		
D.I.W.M.	DUCTILE IRON WATER MAIN	PI	POINT OF INTERSECTION		
D.S.	DOWN SPOUT	PRC	POINT OF REVERSE CURVE		
E/P	EDGE OF PAVEMENT	PT	POINT OF TANGENCY		
E-E	EDGE TO EDGE	PVC	POINT OF VERTICAL CURVE		
ELEV.	ELEVATION	PVI	POINT OF VERTICAL INTERSECTION		
ES	EDGE OF STRIPE	PVT	POINT OF VERTICAL TANGENCY PL		
EW	EDGE OF WALK		PROPERTY LINE		
EX.	EXISTING	PP	POWER POLE		
		PVC	POLYVINYL CHLORIDE PIPE		

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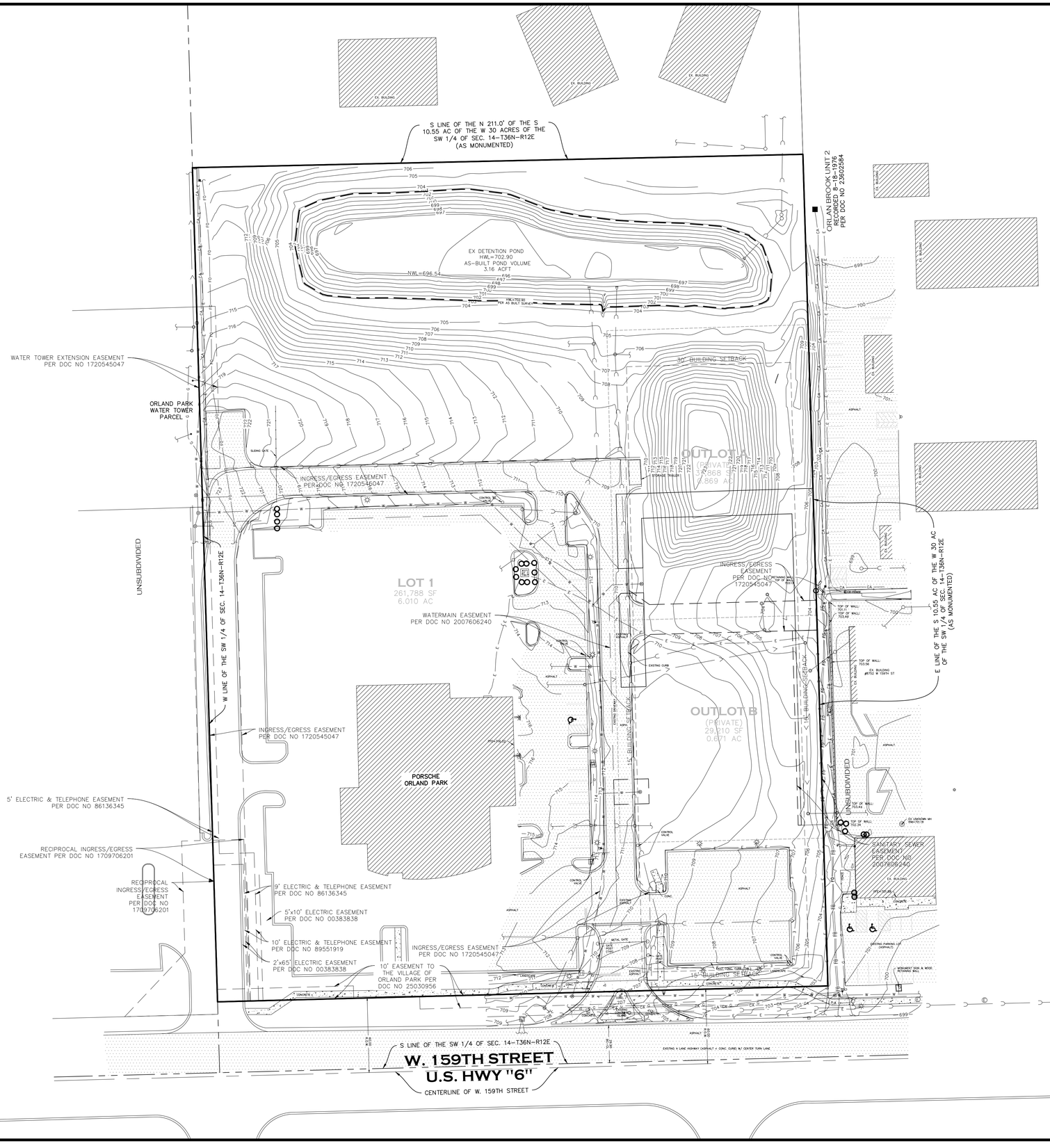
FINAL ENGINEERING PLANS

COVER SHEET

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 1 /26



NORTH

40 0 20 40

1" = 40'
GRAPHIC SCALE

LEGEND

PROPERTY BOUNDARY	
OFFSITE PROPERTY LINE	
EASEMENT LINE	
BUILDING SETBACK LINE	
MEASURED OR CALCULATED DISTANCE	XXX.XX'
DEED OR RECORD DISTANCE	(XXX.XX')
FOUND IRON PIPE	○
FOUND IRON ROD	●
FOUND PK NAIL	⊙
FOUND CUT CROSS	+
STORM SEWER	C
SANITARY SEWER	S
WATERMAIN	W
UNDERGROUND GAS LINE	G
UNDERGROUND CABLE LINE	CA
UNDERGROUND ELECTRIC LINE	E
UNDERGROUND TELEPHONE LINE	T
OVERHEAD UTILITY LINES	OH
GRADING CONTOUR	
FENCE LINE	
DEPRESSED CURB	
TREELINE	
TREE	
POWER POLE	
TELEPHONE PEDESTAL	
TRANSFORMER	E
DRAINAGE FLOW ARROW	
OVERFLOW ROUTE	
LIGHT POLE	
WALL PACK	
SANITARY MANHOLE	
SANITARY CLEANOUT	
FIRE HYDRANT	
VALVE AND VAULT	
GATE VALVE	
STORM CURB FRAME & GRATE	
STORM MANHOLE	
STORM CATCH BASIN	
STORM FLARED END SECTION	
MANHOLE (UNKNOWN UTILITY)	

SITE BENCHMARKS

ELEVATIONS SHOWN ARE RELATIVE TO NAVD'88.

SITE BM #1:
UPPER FLANGE BOLT ON FIRE HYDRANT, AS NOTED HEREON.
ELEV=713.80'

NOTES

1. FIELD WORK COMPLETED ON OCTOBER 24, 2022.
2. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS.
3. SEE CURRENT PLAT OF SURVEY FOR ADDITIONAL INFORMATION.
4. SURFACE INDICATIONS OF UTILITIES HAVE BEEN SHOWN (INCLUDING MARKS AND FLAGS FROM THE CITY OF ROCHELLE), INCLUDING OVERHEAD WIRES AND UTILITY POLES (IF ANY) - HOWEVER THEIR FUNCTION AND DIMENSIONS HAVE NOT BEEN SHOWN. PUBLIC AND/OR PRIVATE RECORDS HAVE NOT BEEN SEARCHED TO PROVIDED ADDITIONAL INFORMATION EXCEPT WHERE OTHERWISE NOTED HEREON.
5. OTHER THAN VISIBLE OBSERVATIONS NOTED HEREON, THIS SURVEY MAKES NO STATEMENT REGARDING THE ACTUAL PRESENCE OR ABSENCE OF ANY SERVICE OR UTILITY LINE. CONTROLLED UNDERGROUND EXPLORATORY EFFORT TOGETHER WITH "JULIE" OR "DIGGER" MARKINGS IS RECOMMENDED TO DETERMINE THE FULL EXTENT OF UNDERGROUND SERVICE AND UTILITY LINES. "JULIE" WILL NOT MARK UTILITIES FOR LAND SURVEYORS FOR THE PURPOSE OF TOPOGRAPHIC SURVEYS IN ILLINOIS.
6. SURVEY COMPLETED FOR:
JOE RIZZA ENTERPRISES, INC.
8150 W. 159TH STREET
ORLAND PARK, IL 60462
7. ONLY TREES OVER 6" SHOWN HEREON.
8. COMMUNICATION LINES WERE MARKED IN ORANGE PAINT OR FLAGS WITHOUT INDICATION OF TELEPHONE, CABLE, OR FIBER OPTIC. UNDERGROUND COMMUNICATION LINES ARE TO BE VERIFIED AND MAY DIFFER FROM HEREON.
9. GRADES SHOWN AT CURBS ARE TOP BACK OF CURB UNLESS OTHERWISE NOTED HEREON.

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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FINAL ENGINEERING PLANS

EXISTING OVERALL CONDITION PLAN

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 2 /26

MATCHLINE SEE SHEET 4

LOT 1
261,788 SF
6.010 AC

OUTLOT B
(PRIVATE)
29,210 SF
0.671 AC

PORSCHE
ORLAND PARK

EX. BUILDING
#8752 W 159TH ST

EX. BUILDING

EX. BUILDING

EX. BUILDING

15' BUILDING SETBACK

15' BUILDING SETBACK

EXISTING DRIVEWAY

EXISTING CURB

RETAINING WALL
TOP OF WALL:
703.13

WOOD 6' FENCE

4" CPP
TOP OF WALL:
701.11
TOP OF WALL:
703.49

TOP OF WALL:
703.56

TOP OF WALL:
708.4±

TOP OF WALL:
702.34

EXISTING PARKING LOT
(ASPHALT)

MONUMENT SIGN & WOOD
RETAINING WALL

FFE=716.02

FFE=701.88

SITE BM#1
ELEV=713.80

EX. STORM CB
RIM=711.46
INV=708.08 E

EX. STORM INL
RIM=712.16
INV=700.46 NE
INV=707.71 SW

EX. STORM CB
RIM=698.77
INV=695.35 E

EX. SAN MH
RIM=704.86
INV=698.46 SE

EX. STORM MH
RIM=703.65
INV=700.65 S

EX. STORM MH
RIM=703.65
INV=700.40 N
INV=700.15 W

EX. SAN MH
RIM=705.64
INV=697.36 W
INV=697.36 NW
INV=697.36 S

EX. STORM CB
RIM=700.24
INV=693.74 SW
INV=693.64 NE

EX. STORM MH
RIM=705.17
CANNOT MEASURE
PIPE

EX. STORM CB
RIM=699.40
INV=693.30 SW
INV=693.25 E

EX. STORM INL
RIM=709.68
INV=696.58 S
INV=698.18 E
INV=696.58 N

EX. STORM INL
RIM=710.99
INV=696.79 N
INV=696.79 S
INV=701.79 E
INV=706.39 W

EX. STORM INL
RIM=714.00
INV=709.38 E
INV=709.38 W

EX. STORM INL
RIM=710.70
INV=704.12 SW
INV=704.12 E
INV=705.74 W

EX. STORM MH
RIM=708.96
INV=696.59 N
INV=703.04 SW
INV=701.34 E
W PIPE NOT OBSERVABLE

EX. STORM INL
RIM=706.01
INV=702.35 W

EX. STORM INL
RIM=706.76
INV=703.56 N

EX. STORM MH
RIM=706.25
INV=699.25 W
INV=697.25 E

EX. STORM INL
RIM=700.66

EX. SAN MH
RIM=714.83
INV=706.99 W
INV=706.99 E

EX. SAN MH
RIM=707.01
INV=695.21 N
INV=690.67 E

EX. SAN MH
RIM=702.03
INV=690.63 W
INV=690.53 E

EX. VALVE VAULT
RIM=710.20

EX. VALVE VAULT
RIM=714.68
TP=706.75

EX. VALVE VAULT
RIM=711.65

EX. VALVE VAULT
RIM=708.25
T/P=701.65

EX. VALVE VAULT
RIM=701.32
T/P=696.32

EX. VALVE BOX
RIM=711.96

EX. VALVE BOX
RIM=712.53

EX. TH
FG=712.39

EX. FH
FG=712.85

EX. FH
FG=706.54

EX. FH
FG=701.09

EX UNKNOWN MH
RIM=701.18

CONTROL VALVE

EXISTING ASPHALT

ASPHALT

ASPH.

CONC.

CONCRETE

LANDSCAPE

METAL GATE

GATE POST (TYP)

EXIST. CONC. CURB (TYP.)

EXISTING CONCRETE ISLAND

EX. CONCRETE

6" PVC

8" PVC

15" RCP

12" RCP

18" RCP

10" RCP

6" HDPE

4" CPP

8" RCP

6" D.I.P.

6" D.I.W.

12" DI WATERMAIN PER VILLAGE RECORDS

EX. FENCE

52.61' PL-EX BLDG

25.90' PL-EX BLDG

25.95' PL-EX BLDG

25.05' PL-EX BLDG

24.35' PL-EX BLDG

37.11' BC-BC

25.10' BC-BC

29.90' BC-CL

60.00' R.O.W.

W 159TH STREET

EXISTING 4 LANE HIGHWAY (ASPHALT + CONC. CURB) W/ CENTER TURN LANE

NORTH

20 0 10 20

1" = 20'
GRAPHIC SCALE

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FINAL ENGINEERING PLANS

EXISTING CONDITION PLAN SOUTH

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 3 /26

NORTH
20 0 10 20
1" = 20'
GRAPHIC SCALE

EX. BUILDING
EX. BUILDING
EX. BUILDING
46.07 PL-EX BLDG
46.07 PL-EX BLDG
43.00 PL-EX BLDG
42.80 PL-EX BLDG
EX STORM CB RIM=698.61
24" RCP
EX DETENTION POND HWL=702.90
NWL=696.54
HWL=702.90 PER AS BUILT SURVEY
EX STORM FES INV=695.91
EX STORM FES INV=696.03
EX STORM FES INV=696.80
EX. VALVE VAULT RIM=714.32 TP=709.37 S
EX STORM MH RIM=705.39 INV=696.09 N INV=696.09 S WEST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
18" RCP
60" RCP
EX STORM MH RIM=707.26 INV=696.11 N INV=696.11 S EAST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
30' BUILDING SETBACK
EX STORM MH RIM=709.43 INV=700.13 NE INV=700.13 SW WEST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
EX STORM INL RIM=708.59 INV=696.09 N INV=698.54 SW INV=698.54 W
EX STORM INL RIM=713.54 INV=708.49 E INV=708.49 W
EX STORM INL RIM=719.65 INV=715.51 E
SLIDING GATE
15" RCP
OUTLOT A (PRIVATE) 37,868 SF 0.869 AC
STORAGE TRAILER
EX. FH
CONTROL VALVE
8" D.I.P.
12" RCP
24" RCP
EX STORM CB RIM=711.46 INV=708.08 E
EX STORM INL RIM=712.16 INV=700.46 NE
88.12 PL-EX BLDG
44.89 PL-EX BLDG
44.61 PL-EX BLDG
82.62 PL-EX BLDG
82.33 PL-EX BLDG
52.85 PL-EX BLDG
52.61
EX. BUILDING
ASPHALT
EX STORM CB RIM=698.77 INV=695.35 E
MATCHLINE SEE SHEET 3

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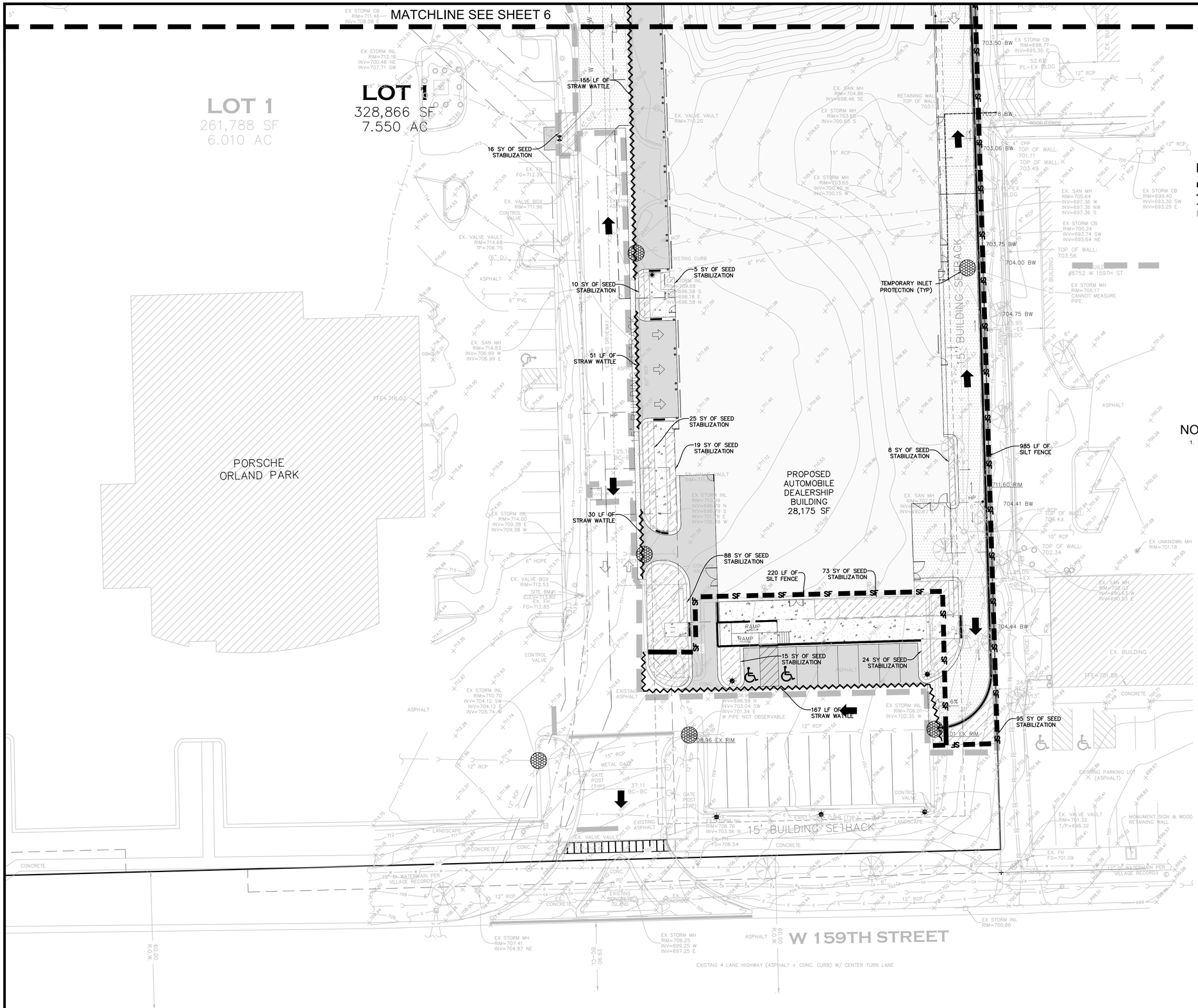
FINAL ENGINEERING PLANS

EXISTING CONDITION PLAN NORTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 4 /26



LEGEND

- SF — SILT FENCE
- STRAW WATTLE
- TREE PROTECTION
- APPROXIMATE LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- MIN. 6" TOPSOIL W/ EROSION CONTROL BLANKET W/ IDOT CLASS 1 SEED (NA GREEN S75 BLANKET)
- FINAL STABILIZATION - MIN. 6" TOPSOIL W/ IDOT CLASS 1 SEED, STRAW MULCH & FERTILIZER
- CHECK DAM / DITCH CHECK
- WETLAND BOTTOM BASIN - MIN. 12" TOPSOIL (REFER TO LANDSCAPE PLAN FOR DETAILS)
- INLET PROTECTION (SEE SHEET #7)
- END SECTION RIP RAP

NOTES

1. ALL STABILIZATION IS THE MINIMUM STABILIZATION REQUIRED. CONTRACTOR SHALL REFER TO THE LANDSCAPE PLAN BY OTHERS FOR ALL PLANTING REQUIREMENTS

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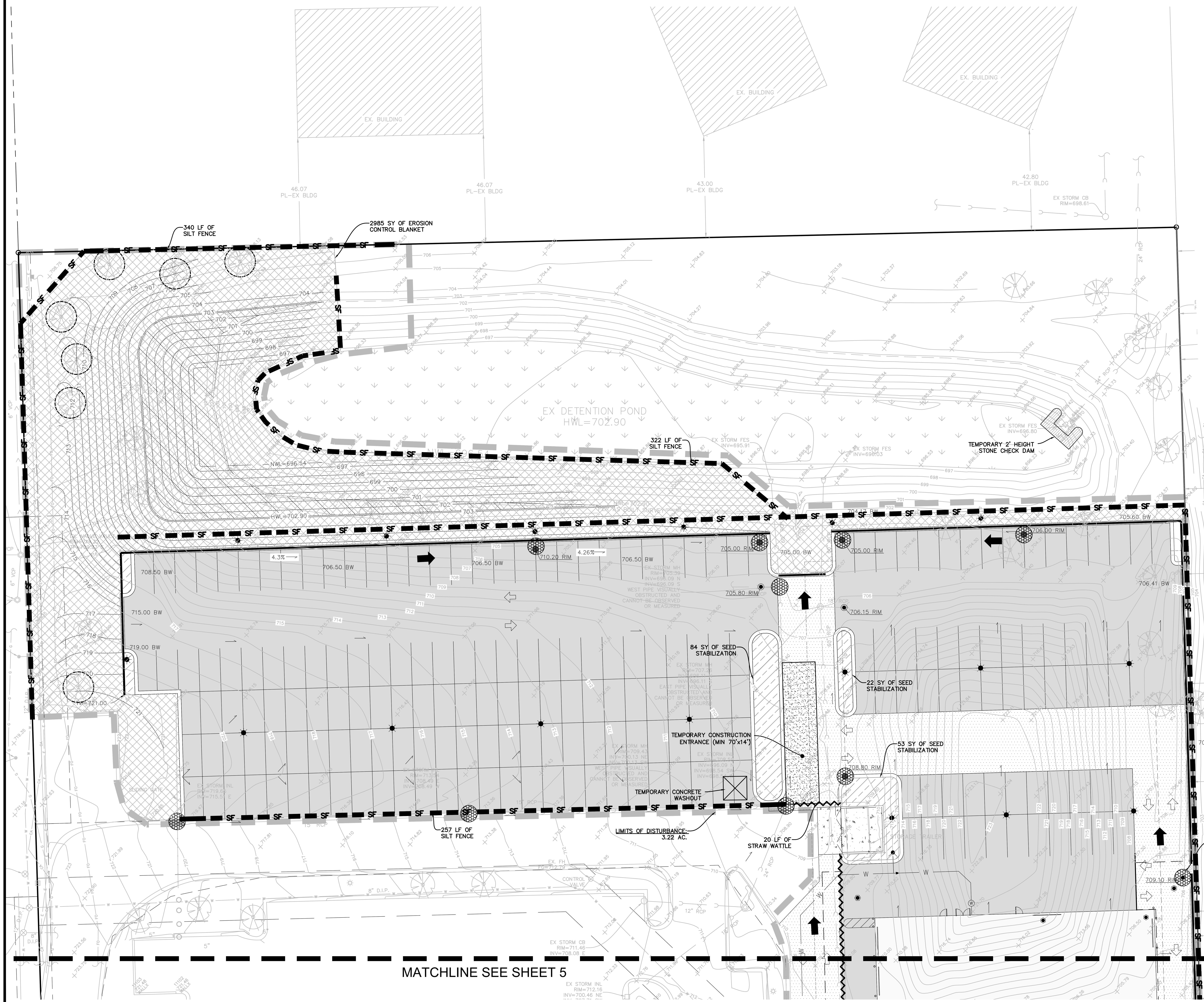
FINAL ENGINEERING PLANS

SOIL EROSION CONTROL PLAN SOUTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 5 /26



NORTH

20 0 10 20

1" = 20'
GRAPHIC SCALE

LEGEND

SF	SILT FENCE
〰	STRAW WATTLE
- - -	TREE PROTECTION
▬ ▬	APPROXIMATE LIMITS OF DISTURBANCE
▦	CONSTRUCTION ENTRANCE
▩	MIN. 6" TOPSOIL W/ EROSION CONTROL BLANKET W/ IDOT CLASS 1 SEED (NA GREEN S75 BLANKET)
▨	FINAL STABILIZATION - MIN. 6" TOPSOIL W/ IDOT CLASS 1 SEED, STRAW MULCH & FERTILIZER
▨	CHECK DAM / DITCH CHECK
▭	WETLAND BOTTOM BASIN - MIN. 12" TOPSOIL (REFER TO LANDSCAPE PLAN FOR DETAILS)
●	INLET PROTECTION (SEE SHEET #7)
▲	END SECTION RIP RAP

NOTES

1. ALL STABILIZATION IS THE MINIMUM STABILIZATION REQUIRED. CONTRACTOR SHALL REFER TO THE LANDSCAPE PLAN BY OTHERS FOR ALL PLANTING REQUIREMENTS

DATE:	DESCRIPTION:
05-22-2023	ISSUED FOR REVIEW

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FINAL ENGINEERING PLANS

SOIL EROSION CONTROL PLAN NORTH

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

CONSTRUCTION SEQUENCE

	2023											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
INSTALL TEMPORARY EROSION CONTROL PROTECTION												
DEMOLITION & ROUGH GRADE SITE												
UTILITY CONSTRUCTION AND BUILDING SERVICE LEADS												
INSTALL NEW PAVEMENT & CONCRETE CURB AND GUTTERS												
CONSTRUCTION OF BUILDINGS												
FINAL GRADING												
FINAL STABILIZATION & PERMANENT EROSION CONTROL PROTECTION												
REMOVE TEMPORARY EROSION CONTROL SEC MEASURES												

	2024											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
INSTALL TEMPORARY EROSION CONTROL PROTECTION												
DEMOLITION & ROUGH GRADE SITE												
UTILITY CONSTRUCTION AND BUILDING SERVICE LEADS												
INSTALL NEW PAVEMENT & CONCRETE CURB AND GUTTERS												
CONSTRUCTION OF BUILDINGS												
FINAL GRADING												
FINAL STABILIZATION & PERMANENT EROSION CONTROL PROTECTION												
REMOVE TEMPORARY EROSION CONTROL SEC MEASURES												

OPTIMAL SEEDING DATES

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
CEREAL RYE OR WHEAT													TEMPORARY SEEDING DATES
OATS													
PERENNIAL RYEGRASS													
NON IRRIGATED													PERMANENT SEEDING DATES
IRRIGATED													
DORMANT SEEDING													

Species	Lbs./Acre	Lbs./1000 ft.2	Seeding Dates
Oats	90	2	Early spring – July 1
Cereal Rye	90	2	Early spring – Sept. 30
Wheat	90	2	Early spring – Sept. 30
Perennial Ryegrass	25	0.6	Early spring – Sept. 30

INSPECTION SCHEDULE

1. DIVERSION AND STRUCTURAL MEASURES - WILL BE INSPECTED WEEKLY OR AFTER EVERY RAINSTORM PRODUCING RUNOFF.
2. SEDIMENT BASINS AND PONDS - WILL BE CHECKED AFTER EACH MAJOR PHASE OF THE DEVELOPMENT FOR SEDIMENT ACCUMULATION.
3. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
4. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 24 HOURS.
5. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNATED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.
6. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED IF NECESSARY.

EARTHWORK / EROSION & SEDIMENTATION CONTROL

1. ALL CONSTRUCTION ACTIVITIES THAT INVOLVES EARTHWORK SHALL MEET THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND ILR10 GENERAL PERMIT REQUIREMENTS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT ALL REQUIRED DOCUMENTATION TO THE IEPA ONLINE PORTAL AS NEEDED:

A) SUBMITTAL OF A NOTICE OF INTENT (NOI) TO IEPA, FEES, STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND A GRAPHIC EROSION AND SEDIMENT CONTROL (ESC) PLAN. A LETTER OF COVERAGE SHALL BE RECEIVED A MINIMUM 30 DAYS PRIOR TO THE START OF CONSTRUCTION.
B) POSSESSION OF A COMPLETED AND SIGNED SWPPP AND A GRAPHIC EROSION AND SEDIMENT CONTROL (ESC) PLAN.
C) IMPLEMENTATION OF THE SWPPP.
D) SUBMITTAL OF AN INCIDENCE OF NONCOMPLIANCE (ION) IF AN EVENT OCCURS.
E) WEEKLY REPORTS AFTER ½" RAINFALL OR 5" SNOWFALL.
F) DOCUMENTATION OF CHANGES TO ESC PLAN
G) SUBMITTAL OF A NOTICE OF TERMINATION (NOT) WHEN FINAL STABILIZATION IS ACHIEVED.

2. ANY WETLAND MITIGATION SHALL BEGIN PRIOR TO ANY GRADING WORK AND SHALL BE IN ACCORDANCE WITH THE APPROVED MITIGATION PERMIT PLAN AND REQUIREMENTS.

3. IN ORDER TO PROTECT AND ENSURE AGAINST FLOODING, ALL TOP OF FOUNDATIONS SHALL BE SET A MINIMUM OF ONE (1) FOOT ABOVE THE HIGH WATER LEVEL OF ADJACENT STORMWATER MANAGEMENT FACILITIES SUCH AS RETENTION/DETENTION PONDS.

4. THE CONTRACTOR SHALL MAINTAIN EXISTING POSITIVE DRAINAGE FROM OFF-SITE AT ALL TIMES DURING CONSTRUCTION.

5. WITHIN THE LIMITS OF PROPOSED GRADING THE SOIL SHALL BE COMPACTED TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MODIFIED PROCTOR DRY DENSITY IN ACCORDANCE WITH ASTM D 1557-78:

UNDER STRUCTURES. BUILDING SLABS, STEPS AND PAVEMENTS. COMPACT 6 INCH MAXIMUM LIFTS OF SUBGRADE. BACKFILL OR FILL MATERIAL AT 95% MODIFIED PROCTOR DRY DENSITY.

UNDER WALKWAYS. COMPACT 6 INCH MAXIMUM LIFTS OF DRY SUBGRADE, BACKFILL, OR FILL MATERIAL AT 95% MODIFIED PROCTOR DRY DENSITY.

UNDER LAWN OR UNPAVED AREAS. COMPACT 6 INCH MAXIMUM LIFTS OF SUBGRADE, BACKFILL, OR FILL MATERIAL AT 85% MODIFIED PROCTOR DRY DENSITY.

6. STRIPPING OF VEGETATION, GRADING OR OTHER SOIL DISTURBANCE, ESPECIALLY IN DESIGNATED WETLAND AREAS, SHALL BE DONE IN A MANNER WHICH WILL MINIMIZE SOIL EROSION, AND SHALL BE IN ACCORDANCE WITH THE APPROVED DRAWINGS, MITIGATION AND PERMIT REQUIREMENTS.

7. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO MINIMIZE EARTHWORK IN AREAS WHERE TREES ARE TO BE SAVED AS SHOWN ON THE PLANS OR DETERMINED IN THE FIELD.

8. THE EXTENT OF THE AREA WHICH IS EXPOSED AND FREE OF VEGETATION AND THE DURATION OF ITS EXPOSURE SHALL BE KEPT WITHIN PRACTICAL LIMITS AS DIRECTED BY THE CITY.

9. SEDIMENTATION SHALL BE RETAINED ON SITE. SEDIMENT FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF ALL REGRADED AREAS OR AS REQUIRED TO PREVENT SEDIMENT FROM ENTERING AND/OR LEAVING THE SITE.

10. DUST PRODUCED FROM THE SITE SHALL BE KEPT TO A MINIMUM DURING DRY PERIODS BY SPRAYING WATER AS REQUIRED TO THE CITY'S SATISFACTION AND IS TO BE CONSIDERED INCIDENTAL.

11. ALL MUD SHALL BE REMOVED FROM ALL TIRES BEFORE LEAVING THE SITE AND THE ROADS SHALL BE KEPT CLEAN AND CLEAR OF MUD AND DEBRIS AT ALL TIMES.

12. CULVERTS AND DRAINAGE DITCHES SHALL BE KEPT CLEAN AND CLEAR OF OBSTRUCTIONS DURING THE CONSTRUCTION PERIOD.

13. SILT FENCES SHALL BE INSPECTED FREQUENTLY AND MAINTAINED OR REPLACED AS REQUIRED TO MAINTAIN BOTH THEIR EFFECTIVENESS AND INTEGRITY.

14. WATER COURSES AND DRAINAGE SWALES ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE MONITORED AS NECESSARY, FOR EVIDENCE OF SILT INTRUSION AND OTHER ADVERSE ENVIRONMENTAL IMPACTS. ANY PROBLEMS OR DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY UPON THEIR DISCOVERY.

15. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL ITEMS PRIOR TO COMMENCEMENT OF ANY WORK.

16. THE CONTRACTOR SHALL INSTALL TEMPORARY ORANGE FENCE AROUND ALL TREES TO REMAIN AND WETLAND AREAS TO BE MITIGATED.

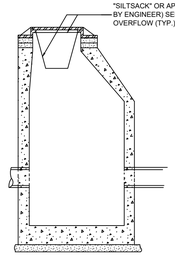
17. ALL EROSION CONTROL MEASURES MUST BE INSPECTED EVERY 7 CALENDAR DAYS AND AFTER EACH 1/2" RAIN EVENT.

18. ALL DROP INLETS ON AND ADJACENT TO THE SITE MUST HAVE A SEDIMENT TRAPPING OR CONTAINMENT DEVICE INSTALLED DURING CONSTRUCTION ACTIVITIES. FILTER FABRIC ON ITS OWN IS NOT AN APPROVED METHOD. A MANUFACTURE'S SPECIFICATION SHOULD BE USED FOR PREFABRICATED DROP INLET PROTECTION AND SHOULD BE AS RESTRICTIVE AS THE ILLINOIS URBAN MANUAL STANDARD 861 FOR INLET PROTECTION.

19. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

20. THE SITE SHOULD BE PHASED IN A WAY THAT REDUCES THE AMOUNT OF STRIPPED, UNSTABILIZED AREAS WITHIN THE SITE AT ANY ONE TIME. MASS GRADING THE ENTIRE SITE SHOULD BE AVOIDED AS TO PREVENT EROSION ONSITE AND SEDIMENTATION ISSUES DOWNSTREAM.

21. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.



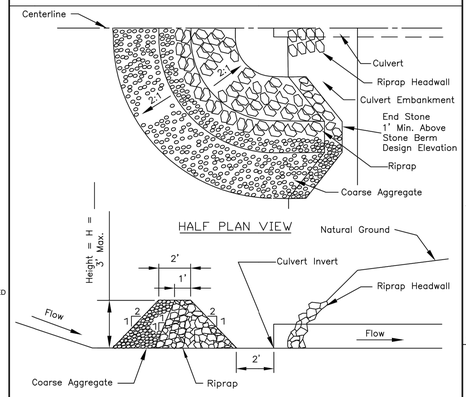
NOTES:

1. FILTER BAG SHALL BE MAINTAINED UNTIL THE AREA TRIBUTARY TO THE STRUCTURE HAS STABILIZED GROUND COVER, AS DETERMINED BY ENGINEER.

INLET PROTECTION

MC - SE10
REVISED: 7/2022

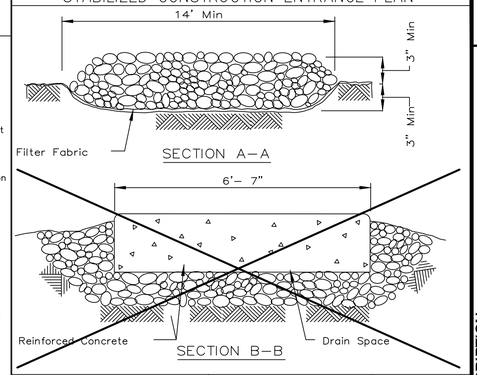
CULVERT INLET PROTECTION - STONE



Notes:
1. Sediment shall be removed when the sediment has accumulated to one-half the height of the stone berm.
2. Coarse aggregate shall meet one of the following IDOT coarse aggregate gradations, CA-1, CA-2, CA-3 or CA-4.
3. Riprap shall meet IDOT gradation RR-3 or RR-4. Any permanent riprap, such as for the culvert headwall, shall meet IDOT Quality Designation A.
4. Coarse aggregate and riprap shall be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
5. The maximum drainage area to the culvert being protected is 3 acres.
6. See plans for H dimension.
7. Tie the stone berm into the culvert embankment a minimum of 1 foot above the design elevation of the stone berm.

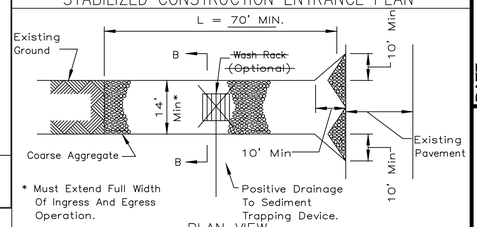
REFERENCE			STANDARD DWG. NO.
Project		NRCS Natural Resources Conservation Service	IL-508ST
Designed	Date		SHEET 1 OF 1
Checked	Date		DATE 1-29-99
Approved	Date		

STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE			STANDARD DWG. NO.
Project		NRCS Natural Resources Conservation Service	IL-630
Designed	Date		SHEET 2 OF 2
Checked	Date		DATE 8-18-94
Approved	Date		

STABILIZED CONSTRUCTION ENTRANCE PLAN



NOTES:
1. Filter fabric shall meet the requirements of material specification 592 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.~~

REFERENCE			STANDARD DWG. NO.
Project		NRCS Natural Resources Conservation Service	IL-630
Designed	Date		SHEET 1 OF 2
Checked	Date		DATE 8-18-94
Approved	Date		

CONTRACTOR CERTIFICATION STATEMENT

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (ILR 10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

Dated this _____ day of _____, AD 20___

BY: _____

Title: _____

Company: _____

Address: _____

_____

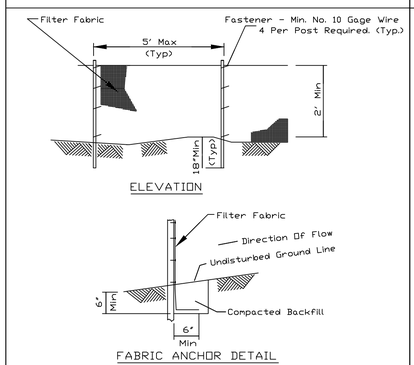
Phone: _____

OWNER CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____ _____
OWNER DATE

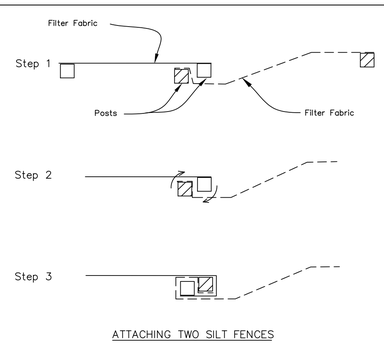
SILT FENCE PLAN



NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

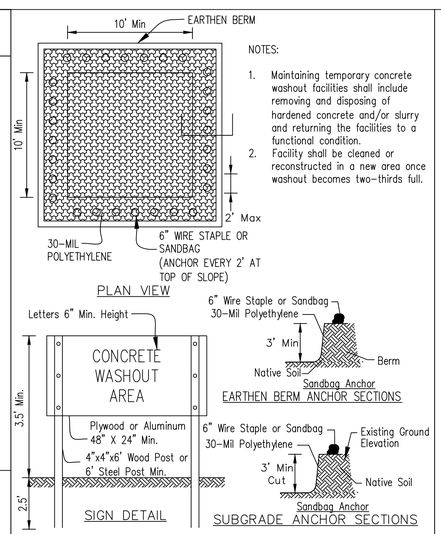
REFERENCE			STANDARD DWG. NO.
Project			IUM-620A
Designed	Date		SHEET 1 OF 2
Checked	Date		DATE 3-16-12
Approved	Date		

SILT FENCE - SPLICING TWO FENCES



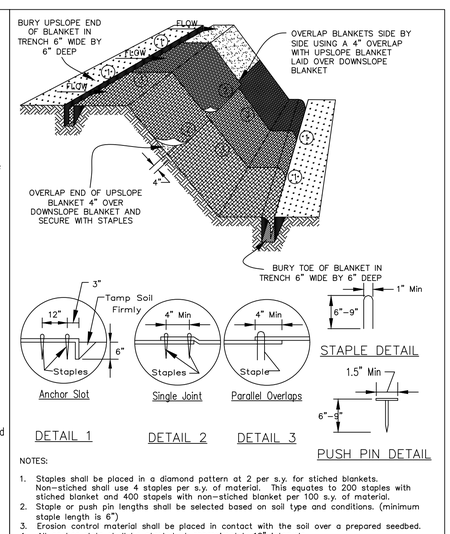
1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

REFERENCE			STANDARD DWG. NO.
Project			IUM-620B(W)
Designed	Date		SHEET 1 OF 1
Checked	Date		DATE 3-16-2012
Approved	Date		



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.

Sheet 2 of 3	Drawing No.	File No. IUM-654ET	TEMPORARY CONCRETE WASHOUT FACILITY - EARTHEN TYPE	Designed	Date
				Drawn B. JOHNSON	6/08
				Checked	
				Approved	



NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

Sheet 1 of 1	Drawing No.	File No. IUM-530	EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed	Date
				Drawn B. JOHNSON	11/08
				Checked	
				Approved	

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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FINAL ENGINEERING PLANS

SOIL EROSION CONTROL NOTES & DETAILS

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 7 /26

MATCHLINE SEE SHEET 9

LOT 1
261,788 SF
6.010 AC

LOT 1
328,866 SF
7.550 AC

OUTLOT B
(PRIVATE)
29,210 SF
0.671 AC

PORSCHE
ORLAND PARK

REMOVE 329 SY OF ASPHALT PAVEMENT
SAW CUT & REMOVE 10 LF OF CURB & GUTTER
REMOVE 6 SY OF ASPHALT PAVEMENT
20 LF OF ASPHALT SAWCUT
CAP WATERMAIN AT TEE
REMOVE EX VALVE VAULT CONE & BACKFILL W/ CLSM. WATERMAIN PIPE TO BE ABANDONED IN PLACE
EX ELECTRIC PRIMARY TO REMAIN. INSTALL PARALLEL CONDUIT PRIOR TO PLACING FOUNDATION AND CONCRETE SLAB
DEMO SAN MH
DEMO STM MH
DEMO ± 21 L.F. 15" RCP STM
DEMO ± 49 L.F. 6" PVC SAN
DEMO STM MH
DEMO ±110 L.F. 18" RCP STM
BULKHEAD EAST INV AND REMOVE STORM PIPING
BULKHEAD WEST AND NORTHWEST INV AND REMOVE PIPE AFTER NEW SAN SERVICE IS COMPLETE
DEMO ± 134 L.F. 6" PVC SAN
BULKHEAD EAST INV AND REMOVE PIPE AFTER NEW SAN SERVICE IS COMPLETE
SAW CUT & REMOVE 172 LF OF CURB & GUTTER
REMOVE 3 SY OF ASPHALT PAVEMENT
CAP WATERMAIN AT TEE
SAW CUT & REMOVE 5 LF OF CURB & GUTTER
15 LF OF ASPHALT SAWCUT
218 LF OF ASPHALT SAWCUT
REMOVE EX VALVE VAULT CONE & BACKFILL W/ CLSM. WATERMAIN PIPE TO BE ABANDONED IN PLACE
EX CATCH BASIN. REMOVE EAST STUB & INSTALL BULK HEAD & SEAL W/ BITUMASTIC SEALER ON OUTSIDE OF CB & HYDRAULIC CEMENT ON INSIDE OF CATCHBASIN.
SAW CUT & REMOVE 222 LF OF CURB & GUTTER
REMOVE EX LIGHT POLES AND FOUNDATIONS
REMOVE 444 SY OF ASPHALT PAVEMENT
REMOVE 11 SY OF CONC. PAVEMENT
TEMPORARY TRAFFIC CONTROL BARRICADE
156 LF OF ASPHALT SAWCUT
TEMPORARY TRAFFIC CONTROL BARRICADE

W 159TH STREET
EXISTING 4 LANE HIGHWAY (ASPHALT + CONC. CURB) W/ CENTER TURN LANE

NORTH
20 0 10 20
1" = 20'
GRAPHIC SCALE

LEGEND
REMOVE ITEM
SAWCUT BACK OF CURB
FULL DEPTH SAWCUT PAVEMENT
REMOVE ASPHALT PAVEMENT
REMOVE CONC. PAVEMENT
REMOVE TREE

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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FINAL ENGINEERING PLANS

DEMOLITION PLAN SOUTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 8 /26

NORTH
20 0 10 20
1" = 20'
GRAPHIC SCALE

LEGEND

- REMOVE ITEM
- SAWCUT BACK OF CURB
- FULL DEPTH SAWCUT PAVEMENT
- REMOVE ASPHALT PAVEMENT
- REMOVE CONC. PAVEMENT
- REMOVE TREE

EX. BUILDING
46.07 PL-EX BLDG
46.07 PL-EX BLDG
EX. BUILDING
43.00 PL-EX BLDG
EX. BUILDING
42.80 PL-EX BLDG
EX STORM CB RIM=698.61
24" RCP
EX DETENTION POND
HWL=702.90
NWL=696.54
HWL=702.90 PER AS BUILT SURVEY
EX STORM FES INV=695.91
EX STORM FES INV=696.03
EX STORM FES INV=696.80
EX VALVE VAULT RIM=714.32 TP=709.37 S
EX STORM MH RIM=705.39 INV=696.09 N INV=696.09 S WEST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
18" RCP
60" RCP
EX STORM MH RIM=707.26 INV=696.11 N INV=696.11 S EAST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
EX STORM MH RIM=709.43 INV=700.13 NE INV=700.13 SW WEST PIPE VISUALLY OBSTRUCTED AND CANNOT BE OBSERVED OR MEASURED
EX STORM INL RIM=708.59 INV=696.09 N INV=698.54 SW INV=698.54 W
EX STORM INL RIM=713.54 INV=708.49 E INV=708.49 W
EX STORM INL RIM=715.65 INV=715.51 E
SLIDING GATE
15" RCP
SAW CUT & DEPRESS 250 LF OF EX. CURB
EXISTING STORAGE TRAILER TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH OWNER)
SAW CUT & REMOVE 42 LF OF CURB & GUTTER
OUTLOT A
(PRIVATE)
37,868 SF
0.869 AC
STORAGE TRAILER
TEMPORARY TRAFFIC CONTROL BARRICADE
78 LF OF ASPHALT SAWCUT
SAW CUT & REMOVE 109 LF OF CURB & GUTTER
EX. FH
CONTROL VALVE
8" D.I.P.
12" RCP
EX STORM CB RIM=711.46 INV=708.08 E
EX STORM INL RIM=712.16 INV=700.46 NE
MATCHLINE SEE SHEET 8
88.12 PL-EX BLDG
44.89 PL-EX BLDG
44.61 PL-EX BLDG
EX. BUILDING
ASPHALT
82.62 PL-EX BLDG
82.33 PL-EX BLDG
52.65 PL-EX BLDG
EX STORM CB RIM=698.77 INV=695.35 E

DESCRIPTION: ISSUED FOR REVIEW
DATE: 05-22-2023

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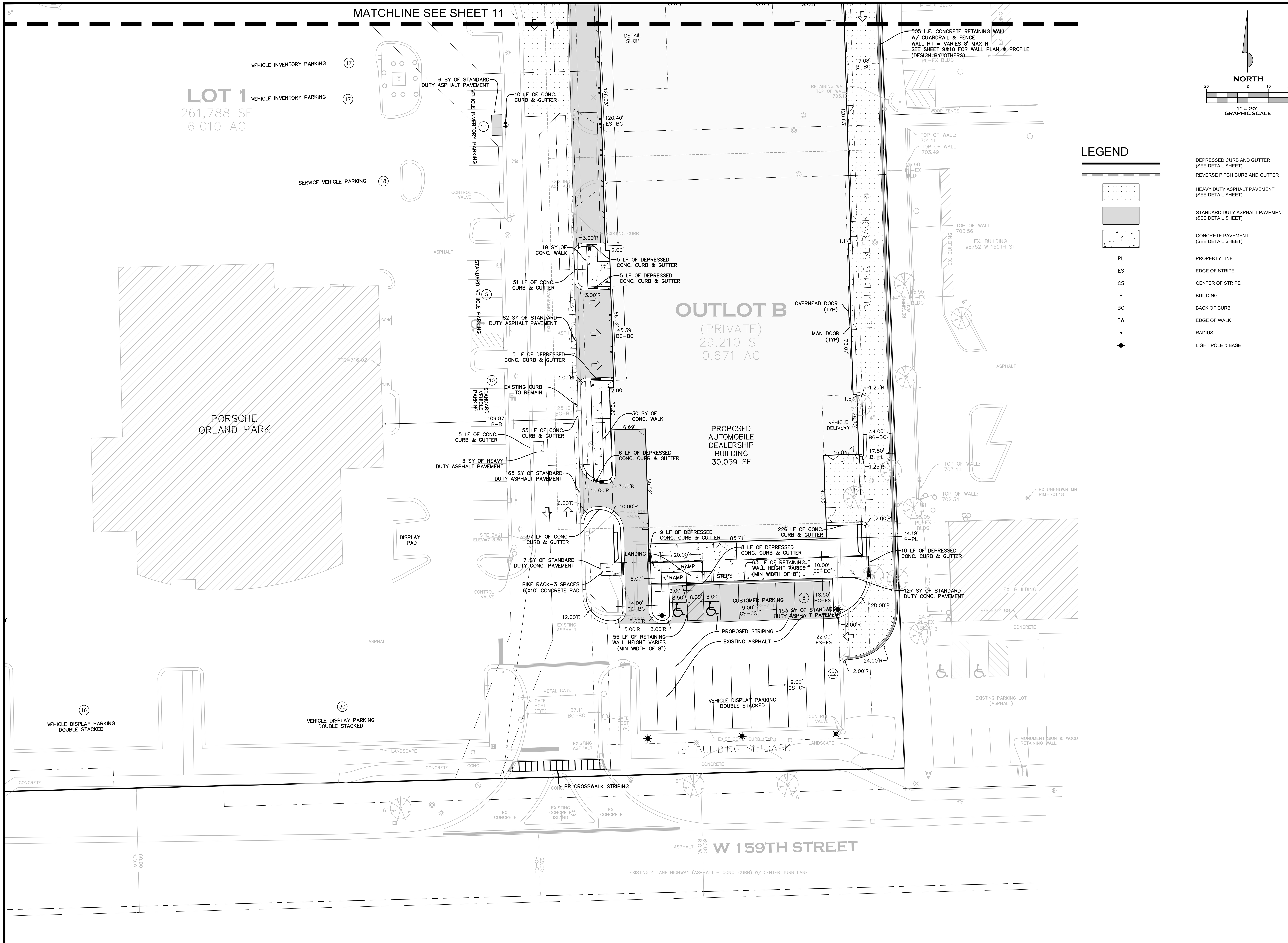
8754 W. 159TH STREET
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

DEMOLITION PLAN NORTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 9 /26



LEGEND

	DEPRESSED CURB AND GUTTER (SEE DETAIL SHEET)
	REVERSE PITCH CURB AND GUTTER
⬚	HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)
▨	STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)
⬚	CONCRETE PAVEMENT (SEE DETAIL SHEET)
PL	PROPERTY LINE
ES	EDGE OF STRIPE
CS	CENTER OF STRIPE
B	BUILDING
BC	BACK OF CURB
EW	EDGE OF WALK
R	RADIUS
✹	LIGHT POLE & BASE

DATE:	DESCRIPTION:
05-22-2023	ISSUED FOR REVIEW

MeritCorp GROUP, LLC
ENGINEERING - PLANNING - SURVEYING - ENVIRONMENTAL
4222 Meridian Parkway, Suite 112
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www.meritcorp.com
Other Office Locations:
Gurnee, IL

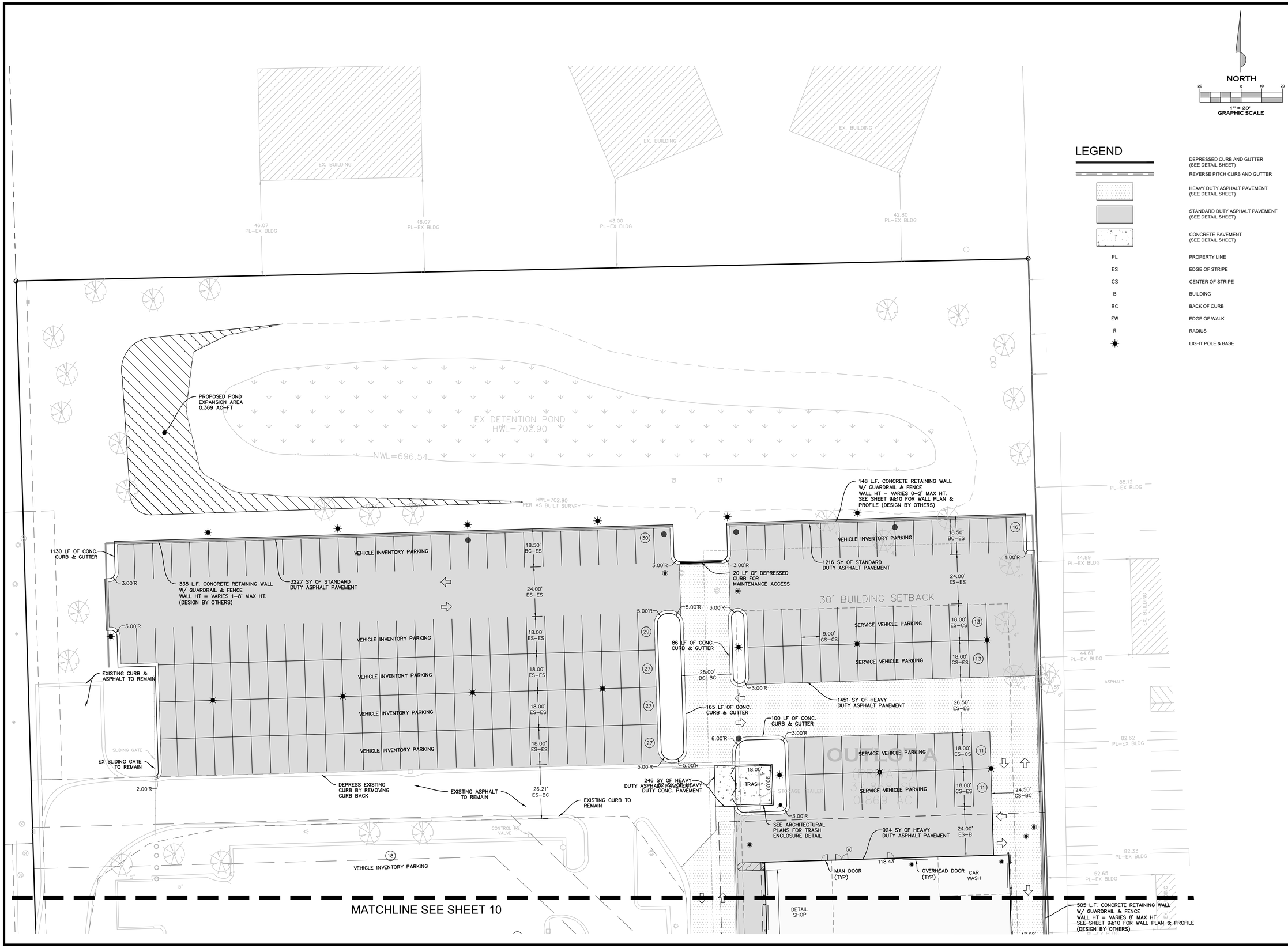
RIZZA ACURA
8754 W. 159TH STREET
ORLAND PARK, ILLINOIS 60462
FINAL ENGINEERING PLANS
GEOMETRIC PLAN SOUTH

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 10/26



NORTH

20 0 10 20

1" = 20'
GRAPHIC SCALE

LEGEND

- DEPRESSED CURB AND GUTTER (SEE DETAIL SHEET)
- REVERSE PITCH CURB AND GUTTER
- HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)
- CONCRETE PAVEMENT (SEE DETAIL SHEET)
- PL — PROPERTY LINE
- ES — EDGE OF STRIPE
- CS — CENTER OF STRIPE
- B — BUILDING
- BC — BACK OF CURB
- EW — EDGE OF WALK
- R — RADIUS
- LIGHT POLE & BASE

DATE: 05-22-2023
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FINAL ENGINEERING PLANS

GEOMETRIC PLAN NORTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 11/26

MATCHLINE SEE SHEET 13

LOT 1
261,788 SF
6.010 AC

LOT 2
328,866 SF
7.550 AC

OUTLOT B
(PRIVATE)
29,210 SF
0.671 AC

PROPOSED AUTOMOBILE DEALERSHIP BUILDING
30,039 SF
F.F.=712.00

F.F.=710.50

F.F.=710.50

PORSCHE ORLAND PARK

15' BUILDING SETBACK

SEE SHEET 19&20 FOR WALL PLAN & PROFILE (DESIGN BY OTHERS)

W 159TH STREET
EXISTING 4 LANE HIGHWAY (ASPHALT + CONC. CURB) W/ CENTER TURN LANE

NORTH
20 0 10 20
1" = 20'
GRAPHIC SCALE

LEGEND

	DEPRESSED CURB AND GUTTER (SEE DETAILS ON SHEET 12)
	REVERSE PITCH CURB AND GUTTER
720	GRADING CONTOUR
	EMERGENCY OVERLAND FLOOD ROUTE
	DRAINAGE FLOW ARROW
T/F	TOP OF FOUNDATION
G/F	GARAGE FLOOR
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
TDC	TOP OF DEPRESSED CURB
M.E.	MATCH EXISTING
T/W	TOP OF WALL
B/W	BOTTOM OF WALL
HWL	HIGH WATER LEVEL
NWL	NORMAL WATER LEVEL

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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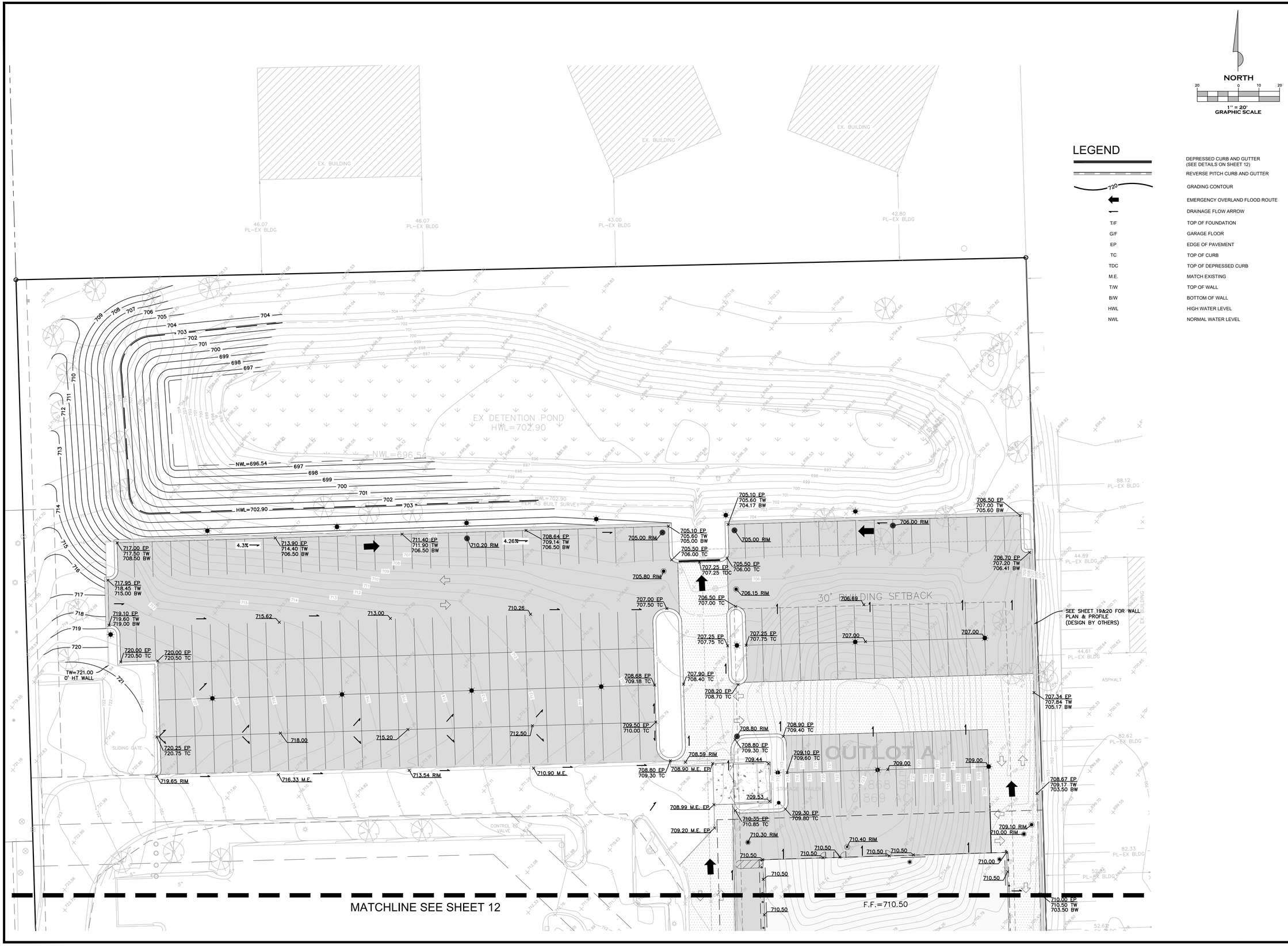
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

GRADING PLAN SOUTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 12/26



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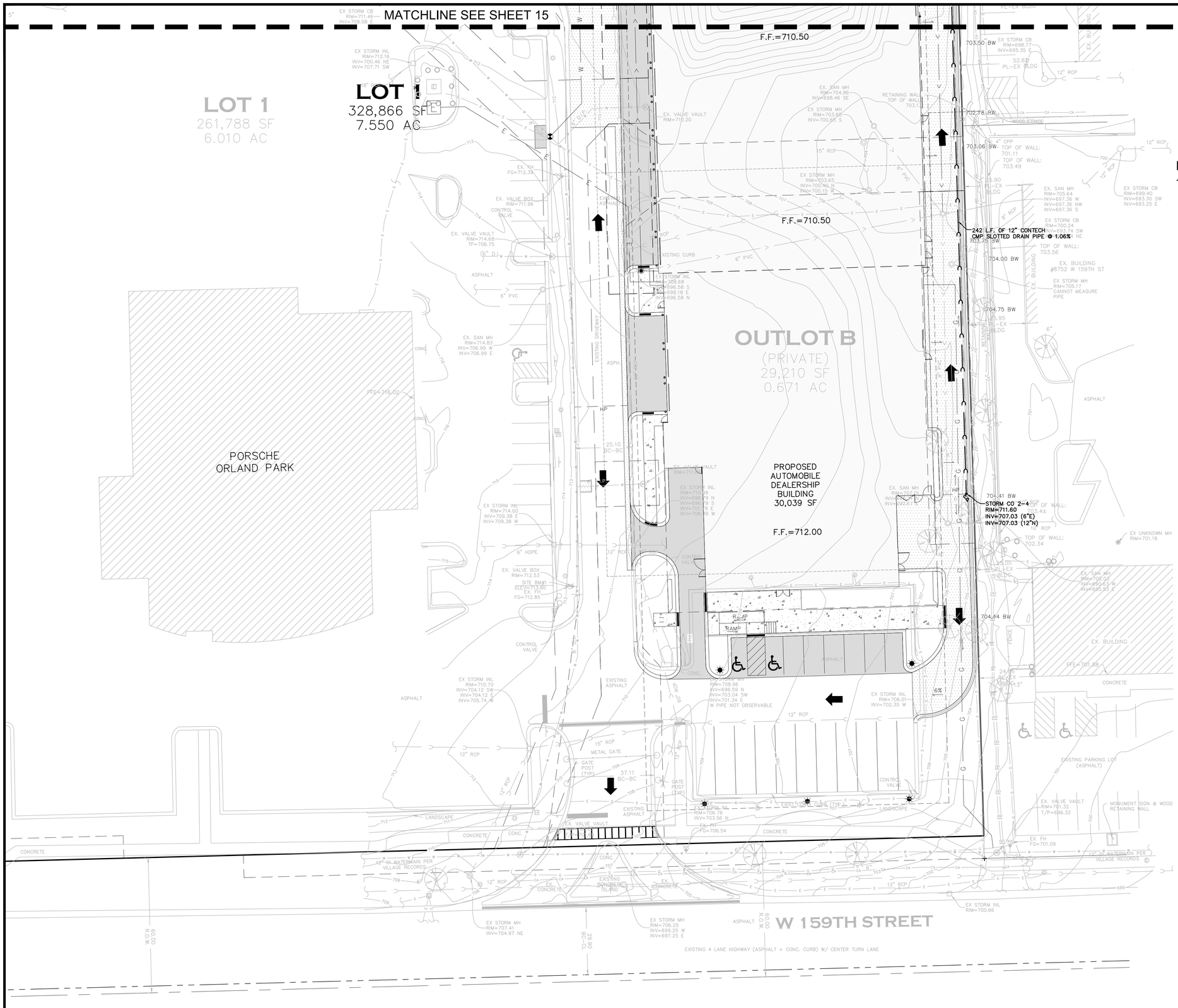
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

GEOMETRIC PLAN NORTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 13/26



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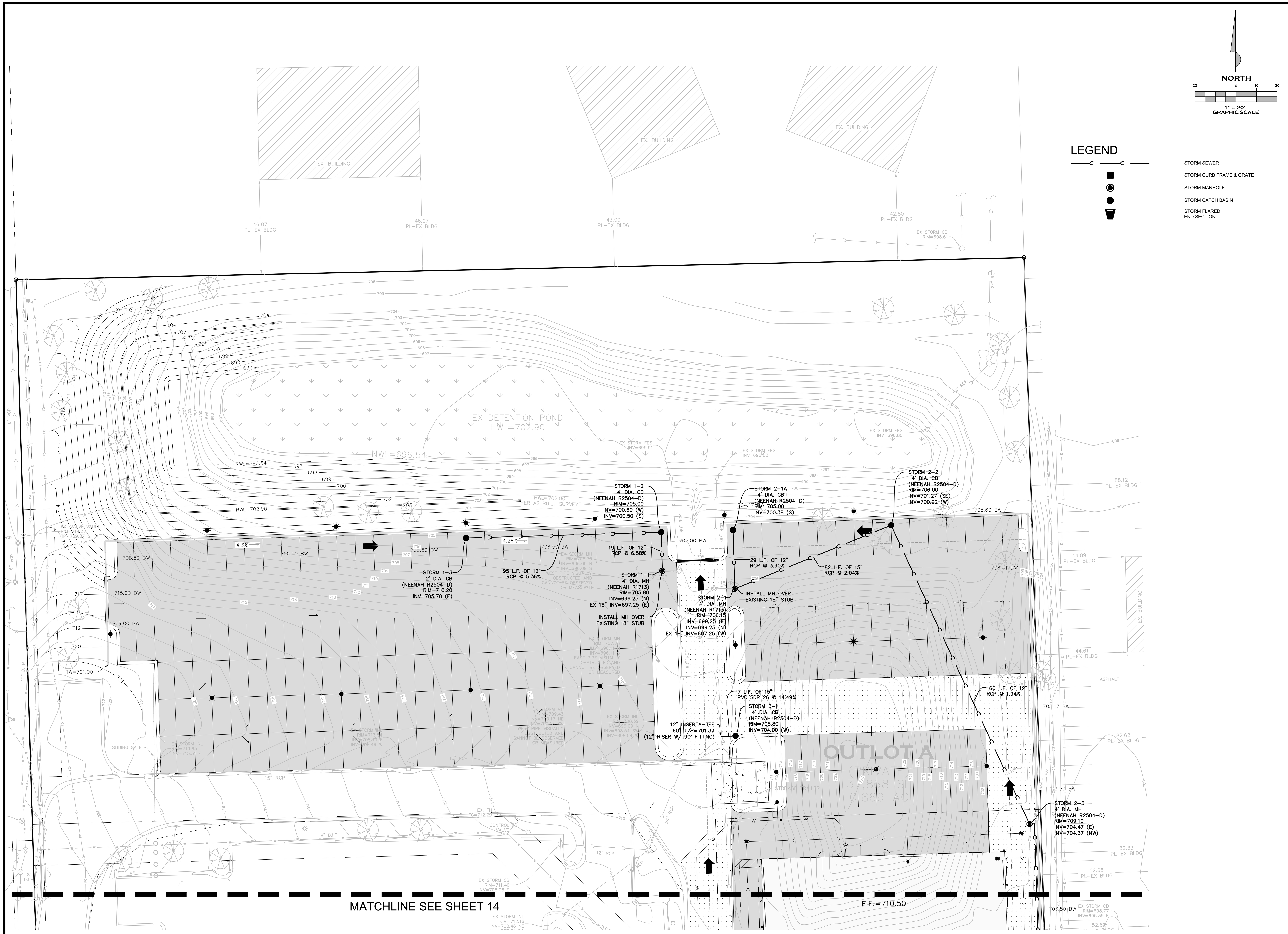
FINAL ENGINEERING PLANS

STORM SEWER PLAN SOUTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 14/26



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ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

STORM SEWER PLAN NORTH

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 15/26

MATCHLINE SEE SHEET 17

LOT 1
261,788 SF
6.010 AC

OUTLOT B
(PRIVATE)
29,210 SF
0.671 AC

PROPOSED AUTOMOBILE DEALERSHIP BUILDING
30,039 SF
F.F.=712.00

F.F.=710.50

F.F.=710.50

PORSCHE ORLAND PARK

W 159TH STREET

EXISTING 4 LANE HIGHWAY (ASPHALT + CONC. CURB) W/ CENTER TURN LANE

15' BUILDING SETBACK

52 L.F. OF 8" DR18 PVC

20 L.F. OF 8" DR18 PVC

45° BEND

134 L.F. OF 6" PVC SDR 26 @ 0.50%

INSTALL NEW TRANSFORMER

WATER 4-1
8" INSERTION VALVE W/ 4' DIA. VAULT
RIM=712.90

DIRECTIONAL BORE PROPOSED ELECTRIC SERVICE

EX ELECTRIC PRIMARY TO REMAIN. INSTALL PARALLEL CONDUIT PRIOR TO PLACING FOUNDATION AND CONCRETE SLAB

PR. SAN MH 5-1
RIM=720.00
EX INV=704.58 (6"W)
PR INV=704.48 (6"N)
PR INV=704.58 (6"E)
(BULKHEAD EAST INV AND REMOVE PIPE AFTER NEW SAN SERVICE IS COMPLETE)
SEAL MH W/ BITUMASTIC SEALER OUTSIDE AND HYDRAULIC CEMENT INSIDE.

SANITARY SERVICE
6" INV @ BLDG=704.66

8 L.F. OF 6" PVC SDR 26 @ 1.04%

INV=703.81 (6"S)
INV=703.71 (6"E)

5 L.F. OF 6" DR18 PVC

SEE PLUMBING PLANS BY OTHERS FOR OIL AND WATER SEPARATOR SPECIFICATIONS.

SEE PLUMBING PLANS BY OTHERS FOR OIL AND WATER SEPARATOR SPECIFICATIONS.

113 L.F. OF 6" PVC SDR 26 @ 0.50%

PROPOSED FIBER, CABLE & PHONE

EX SAN MH
RIM=705.64
ADJUST RIM TO 710.40
EX INV=697.36 (6"S)
PR INV=702.38 (6"N)
DROP INV=697.90 (6"N)
(BULKHEAD WEST AND NORTHWEST INV AND REMOVE PIPE AFTER NEW SAN SERVICE IS COMPLETE)
SEAL MH W/ BITUMASTIC SEALER OUTSIDE AND HYDRAULIC CEMENT INSIDE.

PROPOSED GAS SERVICE

5.00' MIN.

EX. BUILDING
#8752 W 159TH ST

EXISTING PARKING LOT (ASPHALT)

MONUMENT SIGN & WOOD RETAINING WALL

NORTH
20 0 10 20
1" = 20'
GRAPHIC SCALE

LEGEND

T	TELEPHONE LINE
E	ELECTRIC LINE
G	GAS LINE
<	SANITARY LINE
W	WATER LINE
	SANITARY MANHOLE
	VALVE VAULT
	FIRE HYDRANT
	BUFFALO BOX
	GAS VALVE
C.O.	CLEAN OUT

DATE: 05-22-2023
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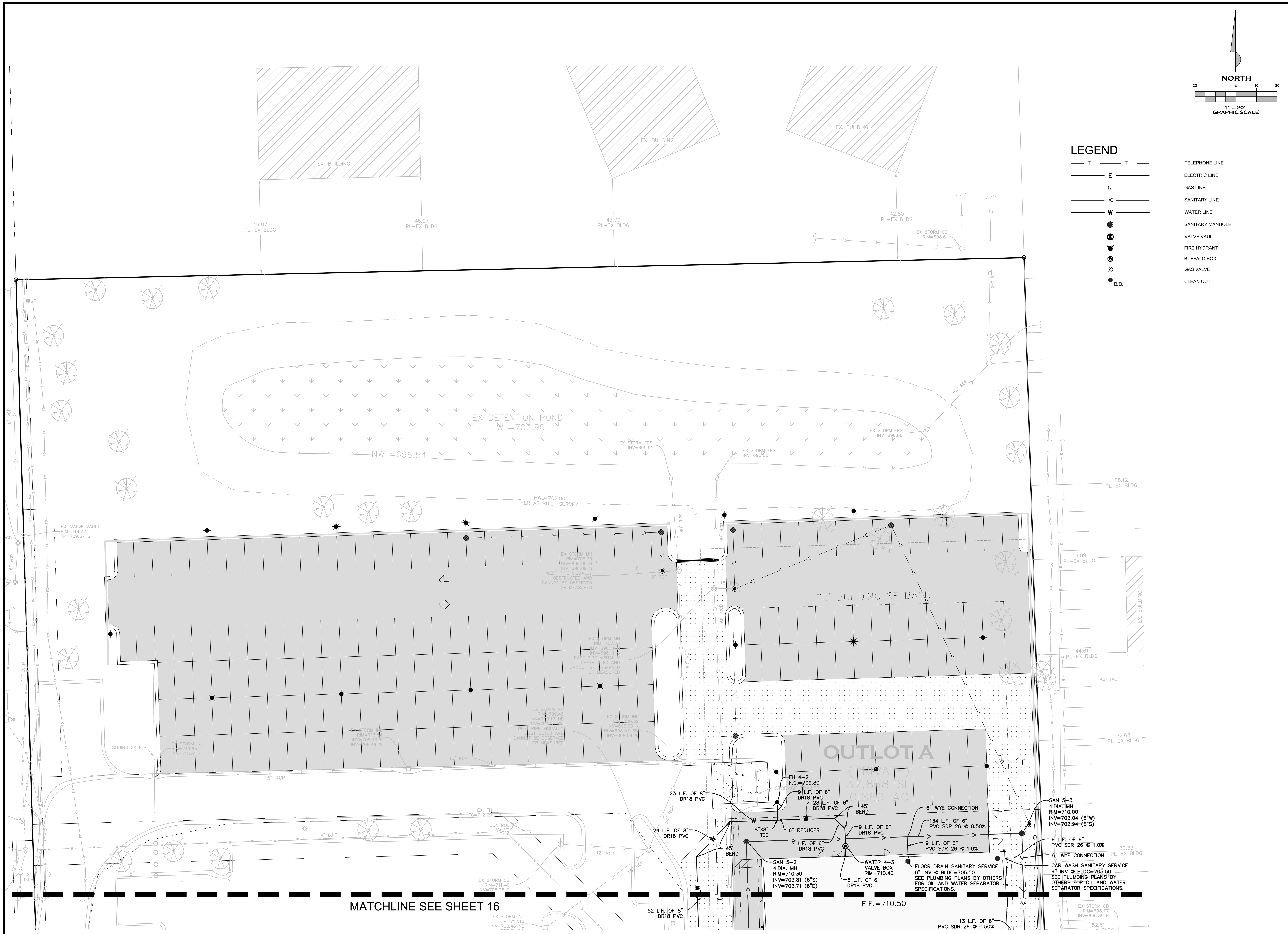
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

UTILITY PLAN SOUTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 16/26



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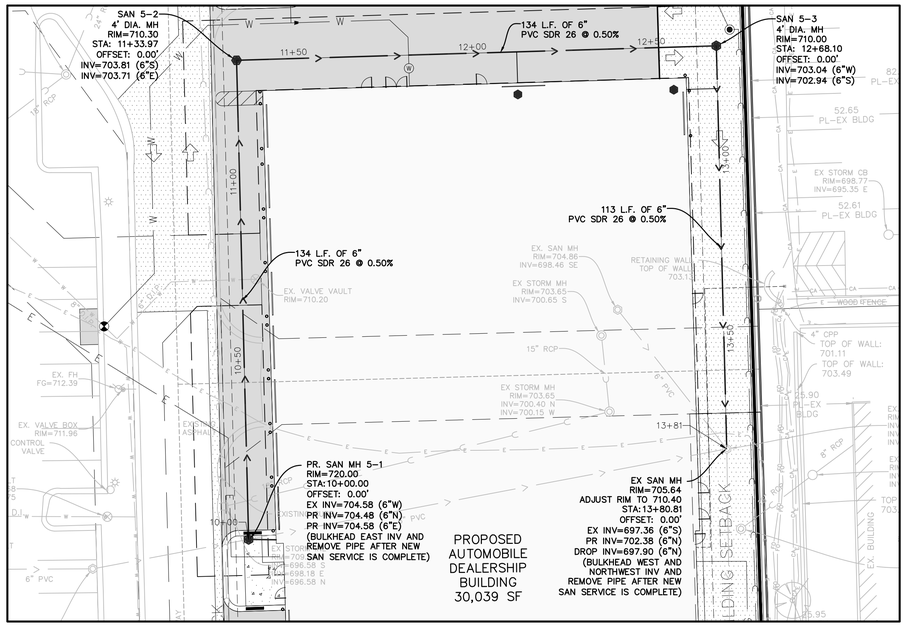
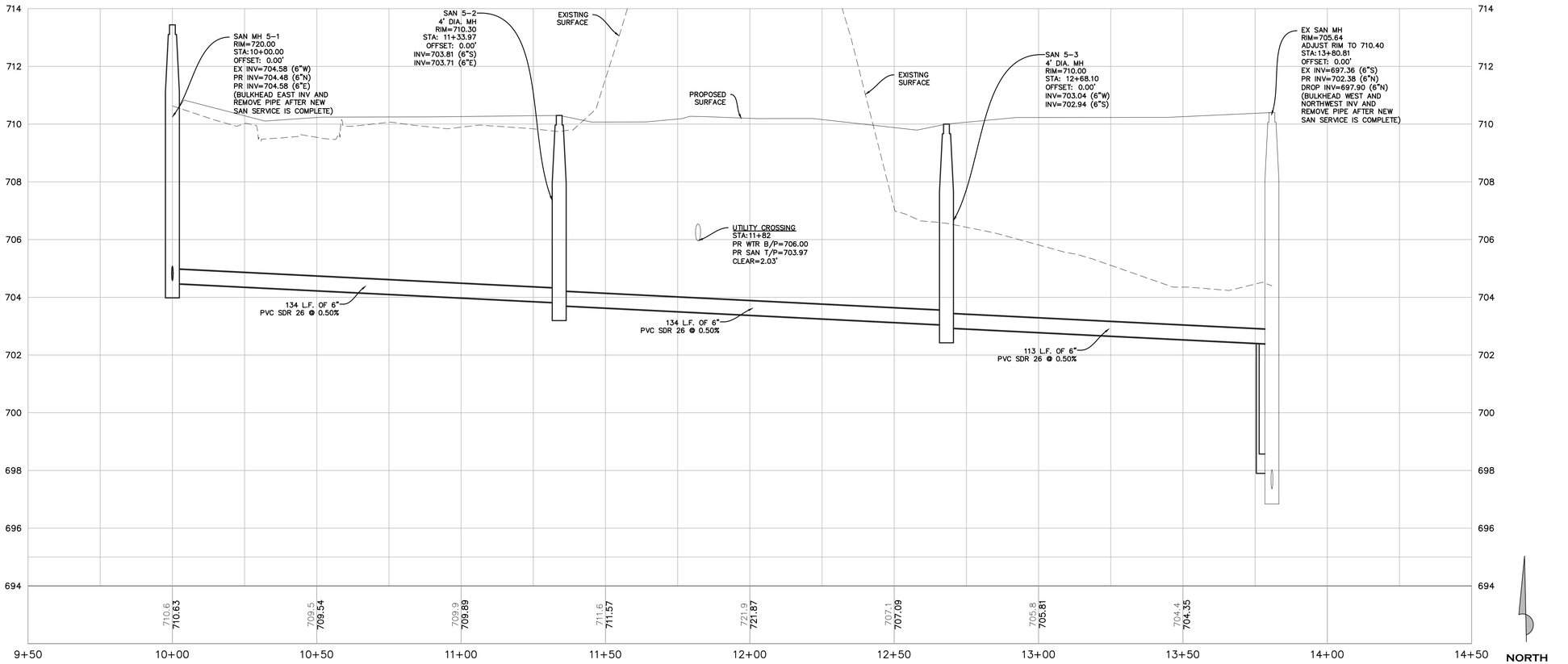
ORLAND PARK, ILLINOIS 60462
FINAL ENGINEERING PLANS
UTILITY PLAN NORTH

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 17/26





LEGEND

- DEPRESSED CURB
- REMOVE ITEM
- STORM SEWER
- SANITARY SEWER
- WATER MAIN
- GRADING CONTOUR
- MANHOLE
- STORM CURB FRAME & GRATE
- STORM MANHOLE
- STORM CATCH BASIN
- SANITARY MANHOLE
- VALVE VAULT
- FIRE HYDRANT
- BUFFALO BOX
- SINGLE POLE SIGN
- STREET LIGHT
- CONCRETE SIDEWALK
- NEW HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET)

NOTES

1. ALL EXISTING UTILITY STRUCTURE ADJUSTMENTS SHALL BE TO FINISHED GRADE AND PER MANUFACTURER AND MUNICIPAL SPECIFICATION. CONTRACTOR SHALL FIELD VERIFY AND NOTIFY ENGINEER OF DISCREPANCIES.

SANITARY PROFILE

SCALE: 1"=20'

NORTH

0 10 20

1" = 20'
GRAPHIC SCALE

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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ORLAND PARK, ILLINOIS 60462

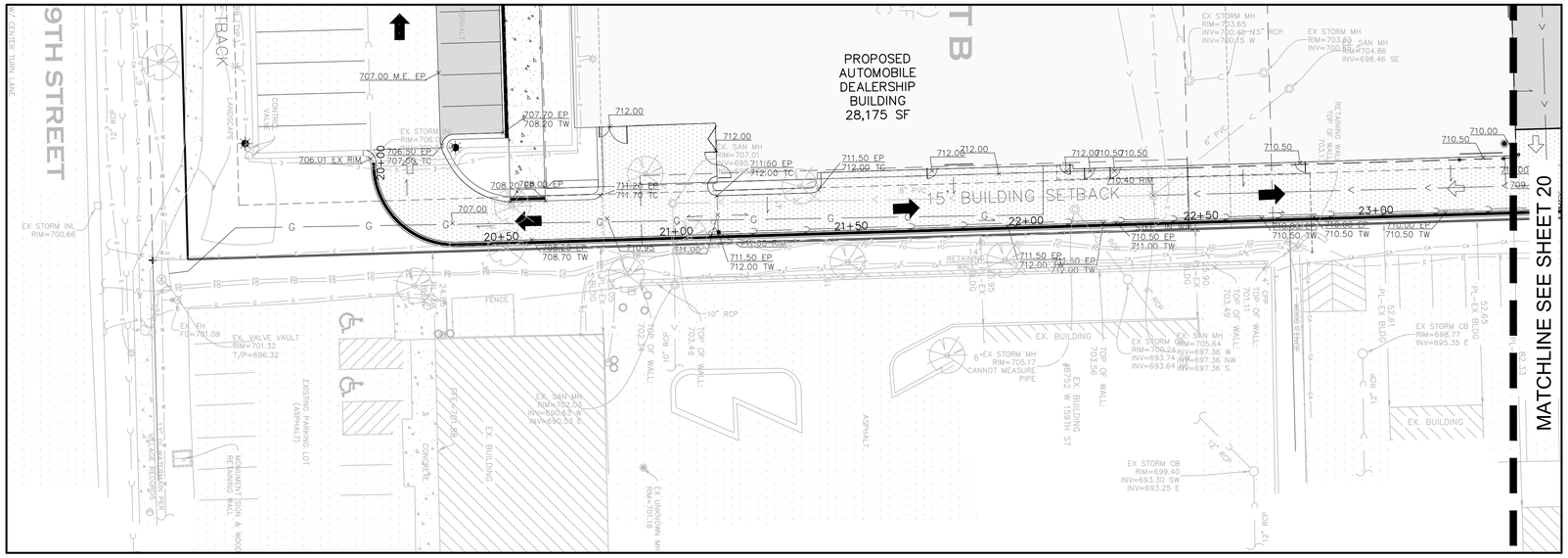
FINAL ENGINEERING PLANS
SANITARY SEWER PLAN AND PROFILE
STA: 10+00 - 13+80

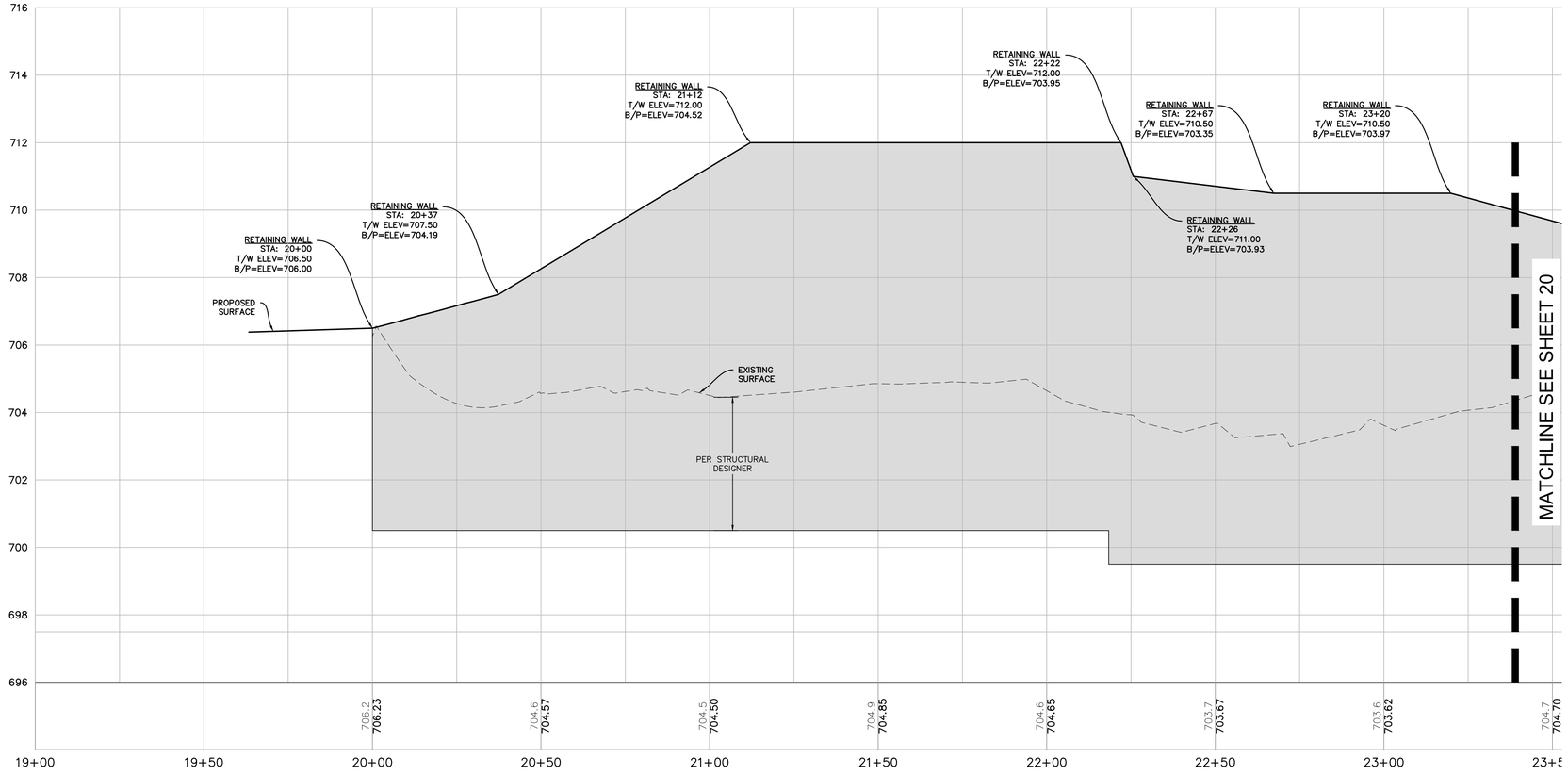
PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 18/26





RETAINING WALL PROFILE

SCALE: 1"=20'

NORTH

1" = 20' GRAPHIC SCALE

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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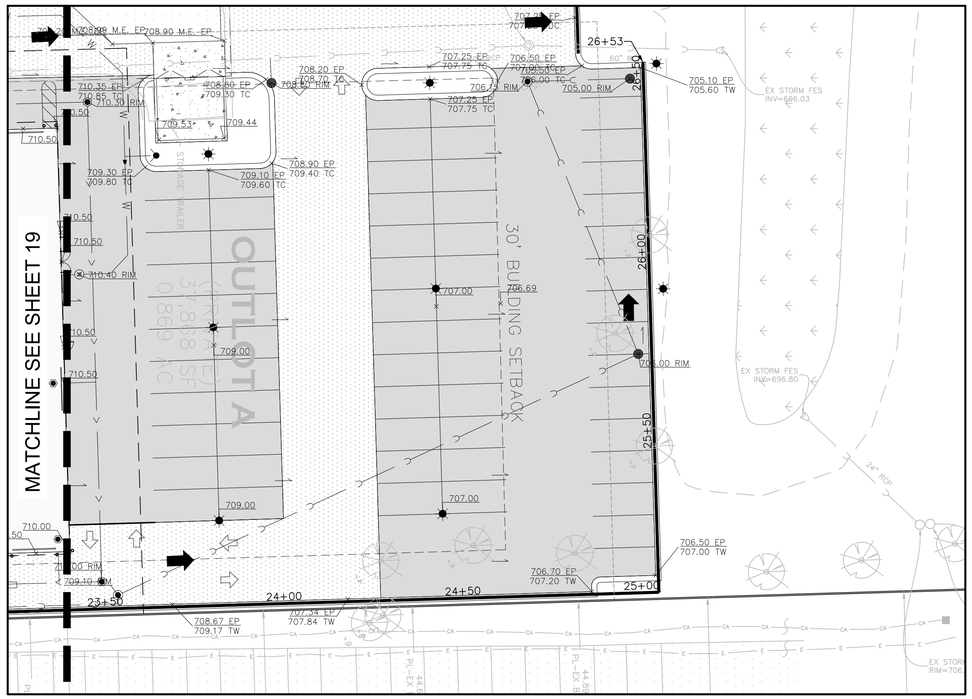
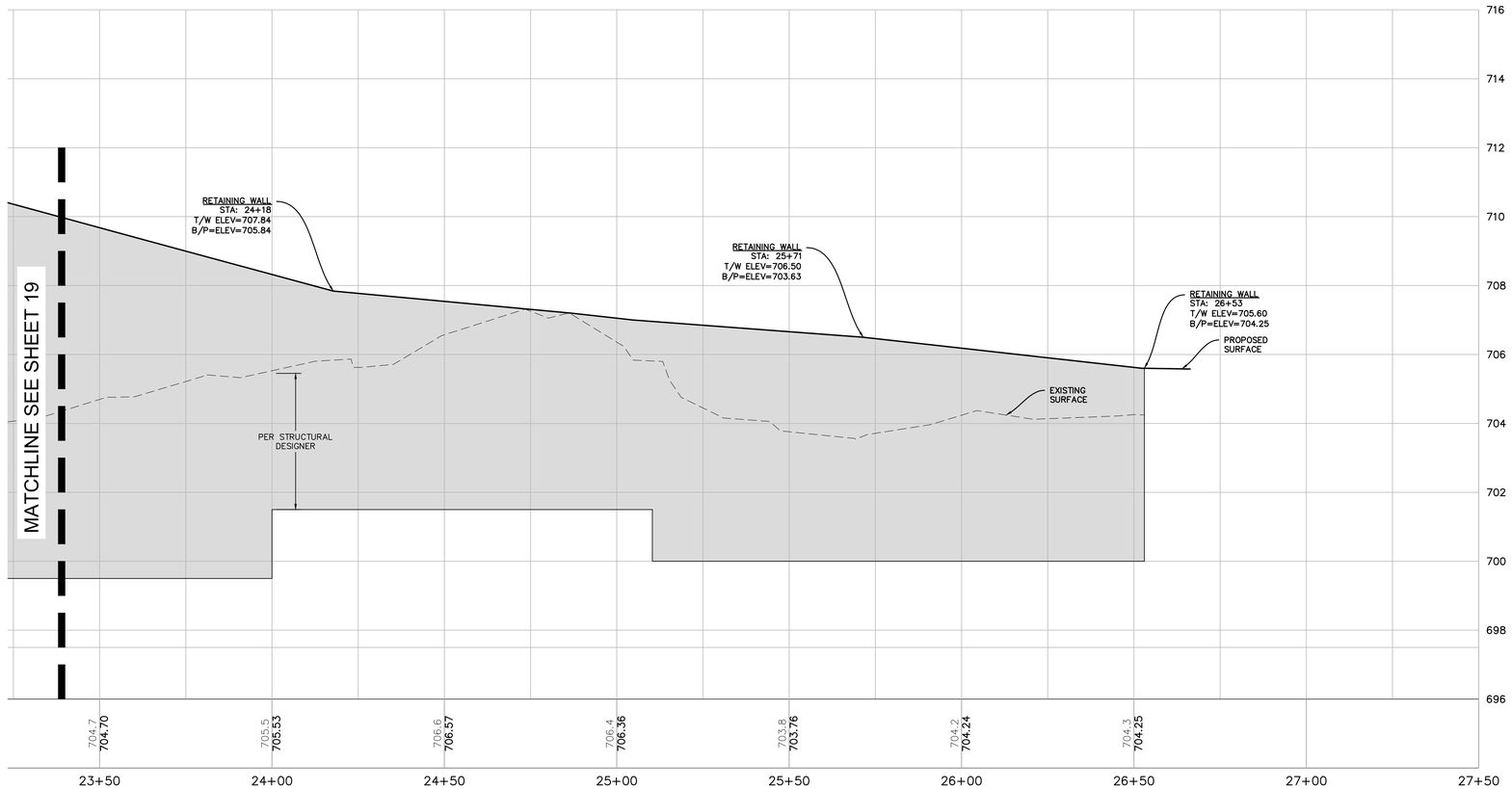
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS
RETAINING WALL PLAN AND PROFILE
STA: 20+00 - 23+39

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 19/26





RETAINING WALL PROFILE

SCALE: 1"=20'

NORTH

0 10 20

1" = 20'
GRAPHIC SCALE

DATE: 05-22-2023
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ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS
RETAINING WALL PLAN AND PROFILE
STA: 23+39 - 26+53

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 20/26

GENERAL SITE IMPROVEMENTS

1. COPIES OF THE REFERENCED STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE CONSIDERED A PART OF THIS CONTRACT.

2. THE GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS (IF ANY) APPLY TO THE WORK SPECIFIED IN THE PLANS.

3. EASEMENTS FOR EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO INFORMATION AVAILABLE IN THE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THESE UTILITY LINES IN THE FIELD AND FOR THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEVELOPER'S REPRESENTATIVE SO THE CONFLICT MAY BE RESOLVED. THE CONTRACTOR SHALL CALL 811 OR J.U.L.I.E. (800-892-0123) PRIOR TO CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE, TO THE SATISFACTION OF THE UTILITY OWNER.

5. RELOCATING UTILITIES SHALL BE THE RESPONSIBILITY OF THE OWNERS EXCEPT WHEN NOTED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THESE OWNERS WHEN MOVING IS NECESSARY.

6. EXPENSE IN CONNECTING PROPOSED UTILITIES TO EXISTING UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT.

7. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY OWNERS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS PRIOR TO CONSTRUCTION.

8. ALL UTILITY WORK WHERE THE INNER EDGE OF THE TRENCH IS WITHIN 2 FEET OF ANY EDGE OF PAVEMENT, CURB, GUTTER, CURB AND GUTTER, STABILIZED SHOULDER OR SIDEWALK SHALL RECEIVE TRENCH BACKFILL. TRENCH BACKFILL SHALL BE INSTALLED PER LOCAL MUNICIPAL REQUIREMENTS OR AT A MINIMUM FOLLOW IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 208 FOR TRENCH BACKFILL.

9. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE BROUGHT TO THE ATTENTION OF VILLAGE & CONNECTED TO THE PROPOSED STORM SEWER SYSTEM OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE SWALE. 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 OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE MUNICIPALITY UPON COMPLETION OF THE PROJECT.

10. WHENEVER ANY LOOSE MATERIAL IS DISPOSED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES OR DITCHES SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

11. REMOVED DRIVEWAY PAVEMENT, SIDEWALK AND CURBS AND CURB AND GUTTER SHALL BE DISPOSED OF OFF-SITE AT LOCATIONS PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE.

12. BEFORE APPROPRIATE ACCEPTANCE BY THE OWNER AND/OR THE MUNICIPALITIES AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE MUNICIPALITIES AND THE OWNER OR HIS REPRESENTATIVES. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED. THE CONTRACTOR SHALL GUARANTEE HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE AND SHALL BE HELD RESPONSIBLE FOR ANY DEFECTS IN MATERIAL OR WORKMANSHIP OF THIS WORK DURING THAT PERIOD.

13. TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH I.D.O.T. STANDARDS SHALL BE INSTALLED AND PROVIDED WHENEVER CONSTRUCTION FOR UTILITIES IS WITHIN A PUBLIC RIGHT OF WAY AREA. ORDINANCES OF THE MUNICIPALITY MAY ALSO GOVERN TRAFFIC CONTROL. THE COST OF PROVIDING, INSTALLING AND MAINTAINING NECESSARY TRAFFIC CONTROL DEVICES SHALL BE INCIDENTAL TO THE CONTRACT.

14. ALL PROPOSED ELEVATIONS SHOWN ON PLANS ARE FINISHED SURFACE ELEVATIONS UNLESS OTHERWISE SPECIFIED.

15. UPON AWARDING OF THE CONTRACT AND WHEN REQUIRED BY THE MUNICIPALITY, THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND PERFORMANCE BOND IN THE AMOUNT REQUIRED BY THE MUNICIPALITY TO GUARANTEE COMPLETION OF THE WORK. THE UNDERWRITER SHALL BE ACCEPTABLE TO THE MUNICIPALITY. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL ALL REQUIRED INSURANCE IS OBTAINED AND ACCEPTED.

16. ALL PERMITS, BONDS AND EVIDENCE OF INSURANCE AS REQUIRED BY UTILITY COMPANIES AND THE MUNICIPALITY SHALL BE OBTAINED BY THE CONTRACTOR AND THE COST OF THESE PERMITS AND BONDS SHALL BE BORNE BY THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE CONTRACT.

17. THE CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS AND OTHER MISCELLANEOUS ITEMS WHICH ARE PRESENT UPON COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEAN-UP AS DIRECTED BY THE MUNICIPALITY OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.

18. NO CONSTRUCTION PLAN SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED FOR CONSTRUCTION. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY ALL LINE AND GRADE STAKES PROVIDED BY THE OWNER. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT TO THE OWNER BEFORE DOING ANY WORK OR ASSUME FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE OWNER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE OWNER SHALL BE FINAL.

19. NOTIFICATION OF COMMENCING CONSTRUCTION: A. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR HIS REPRESENTATIVE AND THE AFFECTED GOVERNMENTAL AGENCIES IN WRITING AT LEAST THREE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL NOTIFY, AS NECESSARY, ALL TESTING AGENCIES. B. FAILURE OF CONTRACTOR TO ALLOW PROPER NOTIFICATION TIME WHICH RESULTS IN TESTING COMPANIES TO BE UNABLE TO VISIT SITE AND PERFORM TESTING WILL CAUSE CONTRACTOR TO SUSPEND OPERATION (PERTAINING TO TESTING) UNTIL TESTING AGENCY CAN SCHEDULE TESTING OPERATIONS. THE COST OF SUSPENSION OF WORK SHALL BE BORNE BY THE CONTRACTOR.

20. ALL CONTRACTORS SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR EMPLOYEES AND EMERGENCY VEHICLES. AT NO TIME SHALL ACCESS BE DENIED TO EMPLOYEES OF THE SITE.

21. THE CONTRACTOR SHALL PROVIDE ELECTRONIC COPIES AND 2 SETS OF COPIES OF "RECORD" DRAWINGS TO THE ENGINEER AND OWNER FOR APPROVAL PRIOR TO SUBMITTING RECORD PLANS TO THE MUNICIPALITY FOR ANY REQUEST FOR FINAL INSPECTION. SAID PLANS SHALL INDICATE THE FINAL LOCATIONS AND LAYOUT OF ALL IMPROVEMENTS AND SHALL INCLUDE VERIFICATION OF ALL BUILDING PADS, INVERTS, RIMS AND SPOT GRADE ELEVATIONS AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE MUNICIPALITY. MYLAR DRAWINGS SHALL BE PROVIDED WHEN THE COPIES ARE APPROVED BY THE MUNICIPALITY.

22. THE CONTRACTOR SHALL VIDEO RECORD THE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

23. ALL IMPROVEMENTS SHOWN ON THE PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER DISTRIBUTION SYSTEM

1. ALL WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (STANDARD SPECIFICATIONS), LATEST EDITION, AND THE REQUIREMENTS OF THE I.E.P.A., O.S.H.A. AND THE MUNICIPALITY.

2. ALL WATER MAIN SHALL BE DUCTILE IRON CLASS 52, WITH MECHANICAL JOINTS AS SHOWN ON THE PLANS. ALL WATER SERVICES LEADS SHALL BE TYPE "K" COPPER UNLESS OTHERWISE SPECIFIED ON THE PLANS.

3. ALL TEES, BENDS, VALVES, AND FIRE HYDRANTS SHALL BE ADEQUATELY SUPPORTED WITH A CONCRETE BASE, AND SUPPORTED LATERALLY WITH POURED IN PLACE THRUST BLOCKING AGAINST UNDISTURBED EARTH.

4. DISINFECTION OF THE WATER MAINS - UPON COMPLETION OF THE NEWLY LAID WATER MAINS, THE WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION PROCEDURE DESIGNATION AWWA C-651-99, LATEST EDITION. THE CONTRACTOR IS RESPONSIBLE FOR COLLECTING SAMPLES AND HAVING BACTERIOLOGICAL TESTING PERFORMED AS REQUIRED BY THE I.E.P.A.. THE CONTRACTOR SHALL FURNISH TO THE MUNICIPALITY THE REQUIRED DOCUMENTATION, TEST RESULTS, ETC., REQUIRED BY THE I.E.P.A. FOR PLACING THE WATER MAINS OR SERVICE LINES IN SERVICE AND/OR SECURING AN OPERATING PERMIT. WATERMAINS AND WATER SERVICE LEADS SHALL BE PRESSURE TESTED AND LEAK TESTED IN CONFORMANCE WITH AWWA C600 AND C605.

5. UPON COMPLETION OF NEWLY LAID WATERMAIN, THE WATERMAIN SHALL BE PRESSURE TESTED AND LEAK TESTED IN CONFORMANCE WITH MUNICIPALITY AND AWWA C600 AND C605 PROVISIONS.

6. WATER MAINS AND WATER SERVICE LINES SHALL BE PROTECTED FROM SANITARY SEWERS, STORM SEWERS, COMBINED SEWERS, HOUSE SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH "TITLE 35: ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F: PUBLIC WATER SUPPLIES, CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119."

7. WHENEVER POSSIBLE, A WATER MAIN MUST BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN OR SEWER LINE. SHOULD LOCAL CONDITIONS EXIST WHICH WOULD PREVENT A LATERAL SEPARATION OF TEN FEET, A WATER MAIN MAY BE LAID CLOSER THAN TEN FEET TO A STORM OR SANITARY SEWER PROVIDED THAT THE WATER MAIN INVERT IS AT LEAST EIGHTEEN INCHES ABOVE THE CROWN OF THE SEWER, AND IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER. IF IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL OR VERTICAL SEPARATION AS DESCRIBED ABOVE, THEN THE SEWER MUST ALSO BE CONSTRUCTED OF WATER MAIN TYPE MATERIAL (DUCTILE IRON PIPE WITH SLIP-ON OR MECHANICAL JOINTS, ETC.) AND PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING.

8. WATER VALVES AND FIRE HYDRANTS SHALL BE OPERATED BY MUNICIPAL PERSONNEL, ONLY.

9. ALL WATERMAIN PIPE, JOINTS AND FITTINGS SHALL BE INSTALLED AND BACKFILLED PER THE CORRESPONDING MANUFACTURER SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES BETWEEN MANUFACTURERS SPECIFICATIONS AND FEDERAL, STATE, OR LOCAL CODES, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO BIDDING AND ORDERING THE MATERIAL.

10. ALL NOTES AND CONDITIONS SHOWN ON THE PLANS SHALL APPLY.

EARTHWORK

1. ALL SITE WORK, GRADING AND EMBANKMENT CONSTRUCTION WITHIN THE LIMITS OF THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS" (STANDARD SPECIFICATIONS), THE MOST RECENT EDITION.

2. EARTH EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, NON-STRUCTURAL FILLS, FINAL SHAPING AND TRIMMING TO THE LINES, GRADES AND CROSS-SECTIONS SHOWN ON THE PLANS. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECTION 200 OF THE STANDARD SPECIFICATIONS. ALL UNSUITABLE OR EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR.

3. TOPSOIL EXCAVATED SHALL BE STOCKPILED ON THE SITE OR IN AREAS DESIGNATED BY THE OWNER UNTIL SUCH TIME THAT THIS TOPSOIL CAN BE USED FOR FINAL GRADING.

4. THE CONTRACTOR IS REFERRED TO SOILS INVESTIGATION FOR THE SITE AND ALL ADDENDA THERETO, SHOWING THE RESULTS OF SUBSURFACE INVESTIGATION MADE ON THIS SITE. COPIES OF SAID SOILS REPORTS ARE ON FILE WITH THE OWNER AND ARE AVAILABLE FOR INSPECTION. THE RECOMMENDATIONS OF SOIL INVESTIGATIONS AS STATED IN SAID REPORT ARE HEREBY INCORPORATED INTO THESE CONSTRUCTION NOTES BY REFERENCE AND SHALL BE FOLLOWED BY THE CONTRACTORS. THE GRADING OPERATIONS ARE TO BE CLOSELY SUPERVISED AND INSPECTED, PARTICULARLY DURING THE REMOVAL OF UNSUITABLE MATERIAL AND THE CONSTRUCTION OF EMBANKMENTS, BY THE SOILS ENGINEER OR HIS REPRESENTATIVE.

5. THE GRADING AND CONSTRUCTION OF THE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.

6. ALL TESTING, INSPECTION AND SUPERVISION OF SOILS QUALITY, UNSUITABLE REMOVAL AND ITS REPLACEMENT AND OTHER SOILS RELATED OPERATIONS SHALL BE ENTIRELY THE RESPONSIBILITY OF THE SOILS ENGINEER AND THE OWNER.

7. THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADE. A MINIMUM OF SIX (6) INCHES OF TOPSOIL IS TO BE PLACED IN OPEN AREAS BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED.

8. THE CONTRACTOR WILL USE CARE WHEN GRADING NEAR TREES, SHRUBS AND BUSHES WHICH ARE NOT TO BE REMOVED SO AS NOT TO CAUSE INJURY TO ROOTS OR TRUNKS. SHOULD THE EXISTING BECOME DAMAGE OR DIE, CONTRACTOR SHALL REPLACE IN KIND AT THE CONTRACTOR'S OWN EXPENSE AND SHALL BE INCIDENTAL TO THE CONTRACT. SEE LANDSCAPE PLANS FOR TREES THAT ARE NOT TO BE REMOVED.

9. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH ARE NOT INDICATED TO BE REMOVED. ANY DAMAGE DONE TO THESE EXISTING ITEMS BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE.

10. UNSUITABLE MATERIAL ENCOUNTERED IN EXCAVATING FOR PAVEMENT SUBGRADES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO THE LIMITS APPROVED BY THE OWNER. UNSUITABLE MATERIAL THAT IS EXCAVATED, AS DIRECTED BY THE SOILS ENGINEER AND OWNER, SHALL BE DISPOSED OF AT THE CONTRACTOR'S OWN EXPENSE AND SHALL BE INCIDENTAL TO THE CONTRACT.

11. THE EARTHWORK CONTRACTOR SHALL BE RESPONSIBLE FOR BACKFILLING OF ALL CURBS, AS SOON AS THE CONCRETE HAS SET SUFFICIENTLY, TO THE REQUIRED ELEVATION WITH SUITABLE MATERIAL WHICH SHALL BE COMPACTED UNTIL FIRM AND SOLID, AND NEATLY GRADED.

12. THE PAVEMENT SUBGRADE SHALL BE GRADED WITHIN +/- 0.10' (AVERAGING ZERO) OF PROPOSED SUBGRADE AS SHOWN ON THE PLANS AND SET BY THE ENGINEER IN THE FIELD. ALL FILL DEPOSITED IN THE AREAS SHALL BE CLEAN CLAY COMPACTED TO 95% OF THE MAXIMUM DENSITY SHOWN ON THE DRY WEIGHT CURVES DETERMINED BY THE MODIFIED PROCTOR ANALYSIS.

13. WASTE EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT A LOCATION PROVIDED BY THE CONTRACTOR WHICH LOCATION BE APPROVED BY OWNER.

14. SUITABLE EXCAVATION IS CLASSIFIED AS EXCAVATION CAPABLE OF 3,000 PSF BEARING WHEN COMPACTED TO 95% MODIFIED PROCTOR.

15. SUITABLE EMBANKMENT IS CLASSIFIED AS EMBANKMENT CAPABLE OF 3,000 PSF BEARING WHEN COMPACTED TO 95% MODIFIED PROCTOR, TO BE USED WITHIN PAVEMENT AREAS. SUITABLE EMBANKMENT CONTAINS 15% COMPACTION FACTOR.

16. UNCLASSIFIED EXCAVATION IS CLASSIFIED AS EXCAVATION NOT NECESSARILY CAPABLE OF A 3,000 PSF BEARING WHEN COMPACTED.

17. UNCLASSIFIED EMBANKMENT IS CLASSIFIED AS EMBANKMENT NOT REQUIRING 3,000 PSF BEARING WHEN COMPACTED. THIS FILL IS TO BE USED IN AREAS OUTSIDE ROADWAY LIMITS AND PAD AREAS.

18. UNCLASSIFIED EMBANKMENT SHALL BE COMPACTED TO NATURAL COMPACTION. SUITABLE EMBANKMENT SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.

19. EARTHWORK QUANTITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING. ANY DISCREPANCIES IN QUANTITIES SHALL BE REPORTED TO OWNER.

20. ALL UNDERCUTTING SHALL BE DONE AT THE DIRECTION OF THE OWNER OR HIS REPRESENTATIVE. THE UNDERCUT SHALL BE CROSS-SECTIONED BY THE OWNER'S REPRESENTATIVE AFTER THE UNDERCUTTING HAS BEEN DONE TO DETERMINE QUANTITY.

21. ALL UTILITY SPOIL PILES SHALL BE CLEANED UP BY THE UTILITY CONTRACTOR. MATERIAL SHALL NOT BE REMOVED FROM THE SITE WITHOUT THE APPROVAL OF THE OWNER AND LOCATION OF DISPOSAL ON THE SITE SHALL BE APPROVED BY OWNER.

22. EXCAVATION BELOW TOPSOIL FOR PAVEMENT SHALL BE TO 2' BEHIND CURB OR PAVEMENT EDGE IN CUT AREA. EXCAVATION BELOW TOPSOIL FOR PADS SHALL BE 5' BEYOND BUILDING LIMITS.

23. TOPSOIL PRESENT IN CUT AREAS SHALL BE STOCKPILED OR USED AS UNCLASSIFIED EMBANKMENT ON SITE OR DISPOSED OF AT THE DIRECTION OF THE OWNER. STOCKPILE LOCATIONS SHALL BE APPROVED BY OWNER OR AS SHOWN ON THE PLANS.

24. IF REQUIRED, BORROW EXCAVATION SHALL BE OBTAINED OFF-SITE. ON-SITE BORROW AREAS SHALL BE DETERMINED BY THE OWNER. PRIOR TO BORROW EXCAVATION, THE CONTRACTOR SHALL HAVE THE AREA CROSS-SECTIONED BY AN AUTHORIZED AGENT OF THE OWNER AND SHALL HAVE THE AREA CROSS-SECTIONED BY THE SAME AFTER THE BORROW AREA HAS BEEN EXCAVATED. IF BORROW MATERIAL IS REQUIRED, THE COST OF OBTAINING, TRANSPORTING, AND PLACEMENT OF THE BORROW MATERIAL ALONG WITH ANY FILLING OF BORROW PITS, IF REQUIRED, SHALL BE AGREED UPON BETWEEN OWNER AND CONTRACTOR PRIOR TO COMMENCEMENT OF BORROW WORK.

25. BERMING FOR LANDSCAPING SHALL BE ROUGH GRADED TO WITHIN 8" OF FINISHED GRADES AS SHOWN ON LANDSCAPE PLANS.

GENERAL PAVING AND SURFACING

1. ALL PAVING OPERATIONS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS" (STANDARD SPECIFICATIONS), LATEST EDITION AND WITH THE REQUIREMENTS OF THE MUNICIPALITY.

2. FINE GRADING: A. PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE STREETS SHALL BE FINE GRADED TO WITHIN 0.1 FOOT OF FINAL SUBGRADE ELEVATION, TO A LIMIT OF TWO (2) FEET BEYOND THE BACK OF CURB.

3. THE CONTRACTOR SHALL COORDINATE WITH THE VILLAGE BUILDING DEPARTMENT FOR PROOF ROLL OF THE SUBGRADE AND BASE BEFORE PAVEMENT CONSTRUCTION PROCEEDS. THE SUBGRADE AND BASE WILL NOT BE APPROVED AND ACCEPTED BY THE MUNICIPALITY OR APPROVED FOR PAYMENT WITHOUT PROOF ROLLING. PROOF ROLLING SHALL BE DONE WITH A RUBBER TIRED VEHICLE HAVING A GROSS WEIGHT OF NOT LESS THAN 30,000 POUNDS (15 TONS). IF THE SUBGRADE OR BASE HAS FAILURES OR PUMPING AS INDICATED BY PROOF ROLLING, THE SUBGRADE OR BASE SHALL EITHER REMOVED AND REPLACED WITH GRANULAR MATERIAL TO A DEPTH AS DIRECTED BY THE OWNER OR OTHER CORRECTIVE MEASURES AS DIRECTED BY THE OWNER.

4. THE FOLLOWING APPLICATION RATES ARE TO BE USED DURING PAVING: A. BITUMINOUS MATERIAL (TACK COAT) ON EXISTING BITUMINOUS CONCRETE SURFACES (PRIME TO BE RC-70) = 0.10 GAL./SQ.YD. B. BITUMINOUS MATERIAL (PRIME COAT) ON AGGREGATE BASE (PRIME TO BE MC-30) = 0.50 GAL./SQ.YD. C. BITUMINOUS CONCRETE SURFACE AND BINDER COURSES. (BINDER COURSE SHALL BE B MIXTURE). (SURFACE COURSE SHALL BE C MIXTURE) = 115 LBS./SQ.YD. ALL MATERIAL SHALL BE CLASS I BITUMINOUS AND SHALL BE VIRGIN MATERIAL. RECYCLED MATERIALS FOR BINDER MAY BE PERMITTED OUTSIDE PUBLIC RIGHT OF WAY UPON APPROVAL OF THE OWNER.

5. PAVEMENT: THE PAVEMENT MATERIALS SHALL BE DETAILED ON THE ENGINEERING PLANS. THICKNESSES SPECIFIED SHALL BE CONSIDERED TO BE THE MINIMUM COMPACTED THICKNESS.

6. GENERAL: THE PAVING CONTRACTOR SHALL: A. REPAIR ANY BASE COURSE AND BINDER COURSE FAILURES PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. B. SWEEP THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE.

7. ACCEPTANCE: A. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE APPROVED BY THE OWNER. B. PRIOR TO PLACEMENT OF THE SURFACE COURSE, THE CONTRACTOR, WHEN REQUIRED, SHALL OBTAIN SPECIMENS OF THE BINDER COURSE WITH A CORE DRILL WHERE DIRECTED, FOR THE PURPOSE OF THICKNESS VERIFICATION.

8. WHEN REQUESTED BY THE OWNER, DOCUMENTATION FOR THICKNESS AND AREAS OF PLACEMENT FOR THE BASE COURSE AND BITUMINOUS CONCRETE SHALL BE SUBMITTED FOR VERIFICATION.

9. ALL NOTES AND CONDITIONS SHOWN ON THE PLANS SHALL APPLY.

STORMWATER DISTRIBUTION SYSTEM

1. ALL STORM DRAIN CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS" (STANDARD SPECIFICATIONS), LATEST EDITION AND TO THE REQUIREMENTS OF I.E.P.A., O.S.H.A. AND THE MUNICIPALITY.

2. STORM SEWER WITH LESS THAN 3' OF COVER SHALL BE CLASS V RCP CONFORMING TO ASTM C-76. STORM SEWER WITH MORE THAN 3' OF COVER SHALL BE CLASS III RCP CONFORMING TO ASTM C-76. "O" RING JOINTS CONFORMING TO ASTM C443 SHALL BE USED FOR ALL R.C.P. STORM SEWER PIPE. STORM SEWER DENOTED AS DUCTILE IRON PIPE (DIP) SHALL CONFORM TO ANSI A21.51 WITH JOINTS CONFORMING TO ANSI 21.11.

3. ALL STORM DRAINS WHICH FALL WITHIN PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR TRENCH BACKFILL ACCORDING TO THE STANDARD SPECIFICATIONS AND THE DETAILS HEREIN.

4. ALL STORM PIPE, JOINTS AND FITTINGS SHALL BE INSTALLED AND BACKFILLED PER THE CORRESPONDING MANUFACTURER SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES BETWEEN MANUFACTURERS SPECIFICATIONS AND FEDERAL, STATE, OR LOCAL CODES, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO BIDDING AND ORDERING THE MATERIAL.

5. ALL NOTES AND CONDITIONS SHOWN ON THE PLANS SHALL APPLY.

SANITARY DISTRIBUTION SYSTEM NOTES

1. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE I.E.P.A., MWRD, O.S.H.A. AND THE MUNICIPALITY.

2. THE CONTRACTOR SHALL NOTIFY PUBLIC WORKS AND BUILDING DEPARTMENT A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO THE CONSTRUCTION OF THE SEWER.

3. ALL SANITARY SEWERS SHALL BE DEFLECTION TESTED AND LOW-PRESSURE AIR TESTED IN ACCORDANCE WITH SECTION 31-1.11 OF THE STANDARD SPECIFICATIONS. ALL MANHOLES SHALL BE VACUUM TESTED AS PER ASTM C-1244-02.

4. TELEVISION TESTING ALL SANITARY SEWERS SHALL BE TELEVISED WITH DVD EQUIPMENT AND A WRITTEN REPORT SUBMITTED BEFORE ACCEPTANCE. TESTING SHALL BE WITNESSED AND APPROVED BY THE MUNICIPALITY.

5. IF THE SANITARY SEWER INSTALLATION FAILS TO MEET THE TEST REQUIREMENTS SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE CAUSE OR CAUSES OF THE DEFECT AND SHALL, AT HIS OWN EXPENSE, REPAIR OR REPLACE ALL MATERIALS AND WORKMANSHIP AS MAY BE NECESSARY TO COMPLY WITH THE REQUIREMENTS.

6. SANITARY SEWER MANHOLES SHALL HAVE REINFORCED CONCRETE SECTIONS MEETING ASTM C-478 AND AN ECCENTRIC CONE INSTALLED TO LINE UP WITH THE MANHOLE STEPS. ALL MANHOLE STEPS SHALL BE IN CONFORMANCE WITH MUNICIPAL STANDARDS.

7. ALL MANHOLE JOINTS SHALL BE SEALED WITH BITUMINOUS MASTIC.

8. NOT MORE THAN 2 RINGS OF 2 INCH MINIMUM SIZE UP TO A MAXIMUM OF 12 INCHES OF PRECAST ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS.

9. ALL MANHOLE LIDS MUST BE SET WITH PREFORMED BUTYL MASTIC.

10. ALL MANHOLES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS AND ALL VISIBLE LEAKAGE ELIMINATED BEFORE FINAL INSPECTION AND ACCEPTANCE.

11. ANY UNSUITABLE MATERIAL ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH COMPACTED CA-6 CRUSHED GRAVEL OR STONE.

12. WATERMAINS SHALL BE SEPARATED FROM SANITARY SEWERS AND STORM SEWERS IN ACCORDANCE WITH I.E.P.A. REQUIREMENTS AS SPECIFIED IN "WATER DISTRIBUTION SYSTEM" SECTION.

13. THE CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS OF SANITARY SEWERS AND SERVICES AT THE COMPLETION OF THE CONSTRUCTION.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING NECESSARY TO CONSTRUCT TRENCHES AND TO INSTALL THE SANITARY SEWER. ANY DEWATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

15. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING ANY CONSTRUCTION DEWATERING SHALL BE FILTERED AND DIRECTED TO THE STORM SEWER IF POSSIBLE.

16. CERTIFICATION: IT SHALL BE THE RESPONSIBILITY OF THE PIPE MANUFACTURERS TO CERTIFY THAT PIPE AND JOINT MATERIALS FURNISHED ARE CAPABLE OF MEETING THE LOWER PRESSURE AIR TEST, INFILTRATION TEST, AND EXFILTRATION TEST, ARE MANUFACTURED IN CONFORMANCE WITH THE A.S.T.M., A.N.S.I., A.W.W.A., OR A.A.S.H.O. TEST(S) SPECIFIED.

17. ALL SANITARY PIPE, JOINTS AND FITTINGS SHALL BE INSTALLED AND BACKFILLED PER THE CORRESPONDING MANUFACTURER SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES BETWEEN MANUFACTURERS SPECIFICATIONS AND FEDERAL, STATE, OR LOCAL CODES, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO BIDDING AND ORDERING THE MATERIAL.

18. ALL NOTES AND CONDITIONS SHOWN ON THE PLANS SHALL APPLY.

MWRD 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;
   * VILLAGE OF OLYMPIA FIELDS 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 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF OLYMPIA FIELDS 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).

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
~~VITRIFIED 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-3261,F-2620 (HEAT FUSION)
	~~ASTM D-3035~~	~~ASTM D-3212,F-477 (GASKETED)~~
WATER MAIN QUALITY PVC		
~~4-INCH TO 36-INCH~~	~~ASTM D-2241~~	~~ASTM D-3139~~
~~4-INCH TO 12-INCH~~	~~AWWA C900~~	~~ASTM D-3139~~
~~14-INCH TO 48-INCH~~	~~AWWA C905~~	~~ASTM D-3139~~

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

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-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES 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 WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS 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 WATERMAIN 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 CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

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.

MWRD NOTES:

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. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. 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.

11. 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.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. 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.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. 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. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. 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.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS 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.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. 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.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. 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.

MeritCorp

DATE:	DESCRIPTION:
05-22-2023	ISSUED FOR REVIEW

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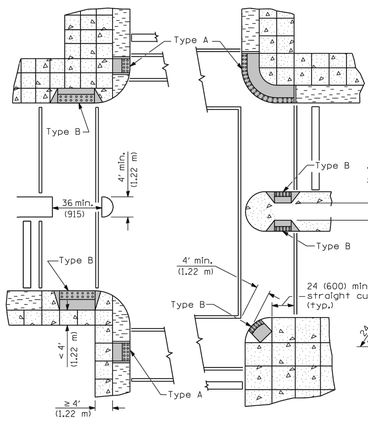
FINAL ENGINEERING PLANS

STANDARD CONSTRUCTION NOTES

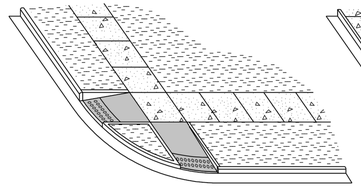
PROJECT NO. M21149

DRAWN BY: ZDS & NFY

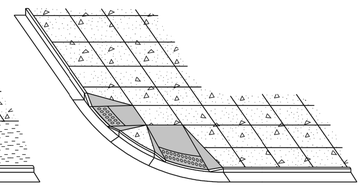
CHECKED BY: TDR



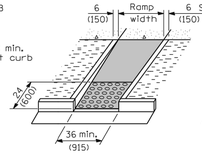
RECOMMENDED LOCATION OF RAMPS



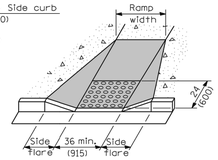
TYPE A RAMPS



TYPE B RAMPS

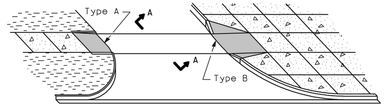


TYPE A

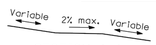


TYPE B

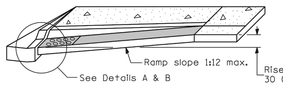
DETAILS OF RAMPS



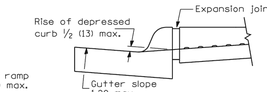
RAMPS AT ALLEYS OR ENTRANCES



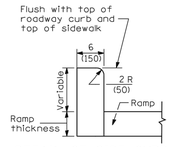
SECTION A-A



RAMP PROFILE

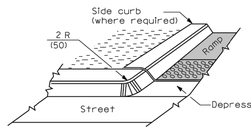


DETAIL A



DETAIL OF SIDE CURB

(Side curb may be constructed monolithically with ramp)



DETAIL B

LEGEND

- Sidewalk
- Ramp
- Detectable Warnings
- Non walking area

GENERAL NOTES

Detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances when permanent traffic control devices are present.

The maximum slope of the side flare for Type B ramps shall be 1:10; however, if the width of the landing area between the top of the ramp and an obstruction is less than 4'-0" (1.22 m) then the maximum slope shall be 1:12.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2008
ENGINEER OF POLICY AND PROCEDURES

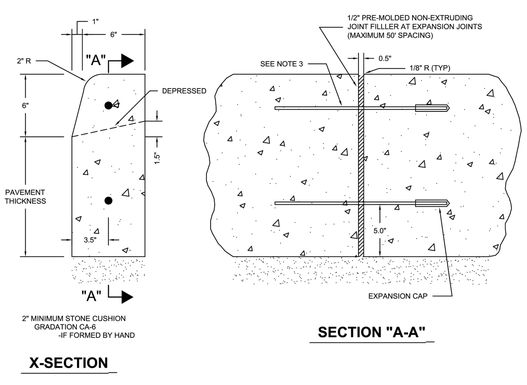
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-08	Switched units to English (metric).
8-1-05	Revised placement of detectable warnings. title.

CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

STANDARD 424001-05

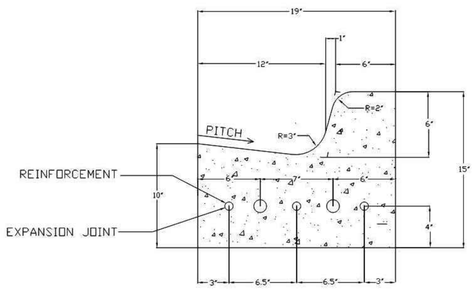


X-SECTION

SECTION "A-SECTION"

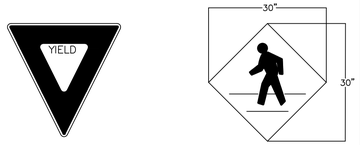
NOTE:
1. PROVIDE TWO #4 BARS CONTINUOUSLY THROUGHOUT CURB LENGTH.
2. COST OF BARS SHALL BE INCLUDED IN THE UNIT PRICE (PER LINEAL FOOT) FOR CURB.
3. PROVIDE TWO #6 SMOOTH BARS W/EXPANSION CAPS AT EACH EXPANSION JOINT. REINFORCING BARS (#4) SHALL BE CUT AT EXPANSION JOINTS TO ALLOW FOR EXPANSION OF CURB.
4. CONTRACTION JOINTS - TWO CONTRACTION JOINTS SHALL BE PLACED AT EQUAL SPACES BETWEEN NORMAL EXPANSION JOINTS. CONTRACTION JOINTS SHALL BE SAW CUT IN THE UPPER 1/3 OF CURB WITHIN 7 DAYS OF PLACEMENT.

VERTICAL CURB (TYPE B)		
B-6.DWG	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISED:
Village of Orland Park		
Engineering Department		DRAWING NO. STR-05



NOTES:
1. REINFORCEMENT: PROVIDE THREE (3) #5 REINFORCING BARS CONTINUOUS BETWEEN EXPANSION JOINTS.
2. EXPANSION JOINT: 3/4" THICK BITUMINOUS FILLER MATERIAL- PROVIDE TWO (2) #6 X 24" SMOOTH BARS WITH EXPANSION CAPS AT EACH EXPANSION JOINT. INSTALL AT ENDS OF ALL RADII AND NO FURTHER THAN SIXTY (60') FEET APART.
3. SAW THREE (3) EQUALLY SPACED CONTRACTION JOINTS AT TWENTY (20') FEET INTERVALS BETWEEN EXPANSION JOINTS. CONTRACTION JOINTS SHALL BE SAW-CUT IN THE UPPER ONE-THIRD OF CURB AND GUTTER WITHIN 3 DAYS OF PLACEMENT.
4. COST OF BARS SHALL BE INCLUDED IN THE UNIT PRICE (PER LINEAL FOOT) FOR CURB AND GUTTER.

B - 6.12 CURB AND GUTTER		
B-612.DWG	STREET & PAVEMENT	DATE:
DRAWN BY:		REVISED:
Village of Orland Park		REVISED:
Engineering Department		REVISED: 2-21-07
		DRAWING NO. STR-04



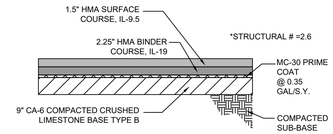
STANDARD RED AND WHITE SIGN
R1-2 – YIELD

STANDARD RED AND WHITE SIGN
W11-2 – PEDESTRIAN CROSSING WARNING

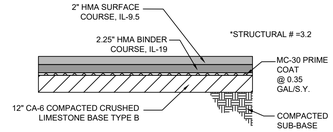
ACCESSIBLE SPACE SIGNAGE

NOTES:
1. ALL SIGNS SHALL FOLLOW THE MUTCD, MOST RECENT EDITION, UNLESS OTHERWISE SPECIFIED BY THE LOCAL DEPARTMENT OF TRANSPORTATION OR MUNICIPALITY STANDARDS.
2. ALL SIGNS SHALL BE MOUNTED AT A HEIGHT AND LOCATION AS SPECIFIED BY THE MUTCD, LOCAL D.O.T. OR LOCAL MUNICIPALITY STANDARDS.

MC - SITE2
REVISED: 8/2022



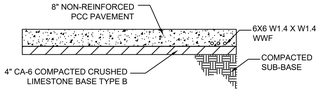
STANDARD DUTY ASPHALT PAVEMENT SECTION



HEAVY DUTY ASPHALT PAVEMENT SECTION

ASPHALT PAVEMENT SECTIONS

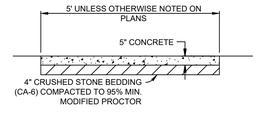
MC - SITE5
REVISED: 10/2016



NOTES:
1. P.C.C. SHALL BE IDOT CLASS PV, 3500 PSI @ 14 DAYS.

ROLL OFF DUMPSTER CONCRETE PAD

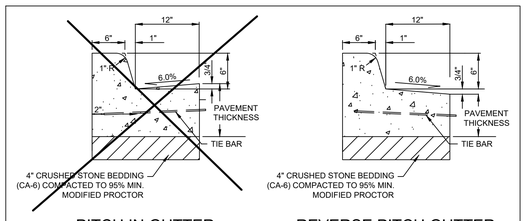
MC - SITE4
REVISED: 7/2012



NOTES:
1. INSTALL CONTRACTION JOINTS EVERY 5'-0" O.C.
2. INSTALL EXPANSION JOINTS EVERY 45'-0" O.C.
3. INSTALL (3) #5 REBARS, 20' LONG ACROSS TRENCH CROSSINGS (TYP).
4. CONCRETE THICKNESS SHALL BE INCREASED TO 6" AT ALL DRIVEWAYS.
5. P.C.C. SHALL BE CLASS SI, 3500 PSI @ 14 DAYS, SIX BAG MIX.
6. SIDEWALK SHALL HAVE A BROOM FINISH.

PCC SIDEWALK

MC - SITE3
REVISED: 7/2012



PITCH IN GUTTER

REVERSE PITCH GUTTER

NOTES:
1. LONGITUDINAL JOINT TIE BARS SHALL BE NO. 6 AT 24" CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT.
2. BOTTOM SLOPE OF COMBINATION CURB AND GUTTER CONSTRUCTED ADJACENT TO PCC PAVEMENT SHALL BE THE SAME SLOPE AS THE SUBBASE OR 6% WHEN SUBBASE IS OMITTED.
3. A MINIMUM CLEARANCE OF 2" BETWEEN THE END OF THE TIE BAR AND THE BACK OF THE CURB SHALL BE MAINTAINED.
4. INSTALL CONTRACTION JOINTS AND EXPANSION JOINTS PER IDOT STANDARD 606001-02.
5. ALL CONCRETE CURB CONSTRUCTION SHALL BE PER THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISIONS.

B-6.12 CURB AND GUTTER DETAIL

NOT TO SCALE

MC - SITE16
REVISED: 4/2016

DESCRIPTION: ISSUED FOR REVIEW
DATE: 05-22-2023

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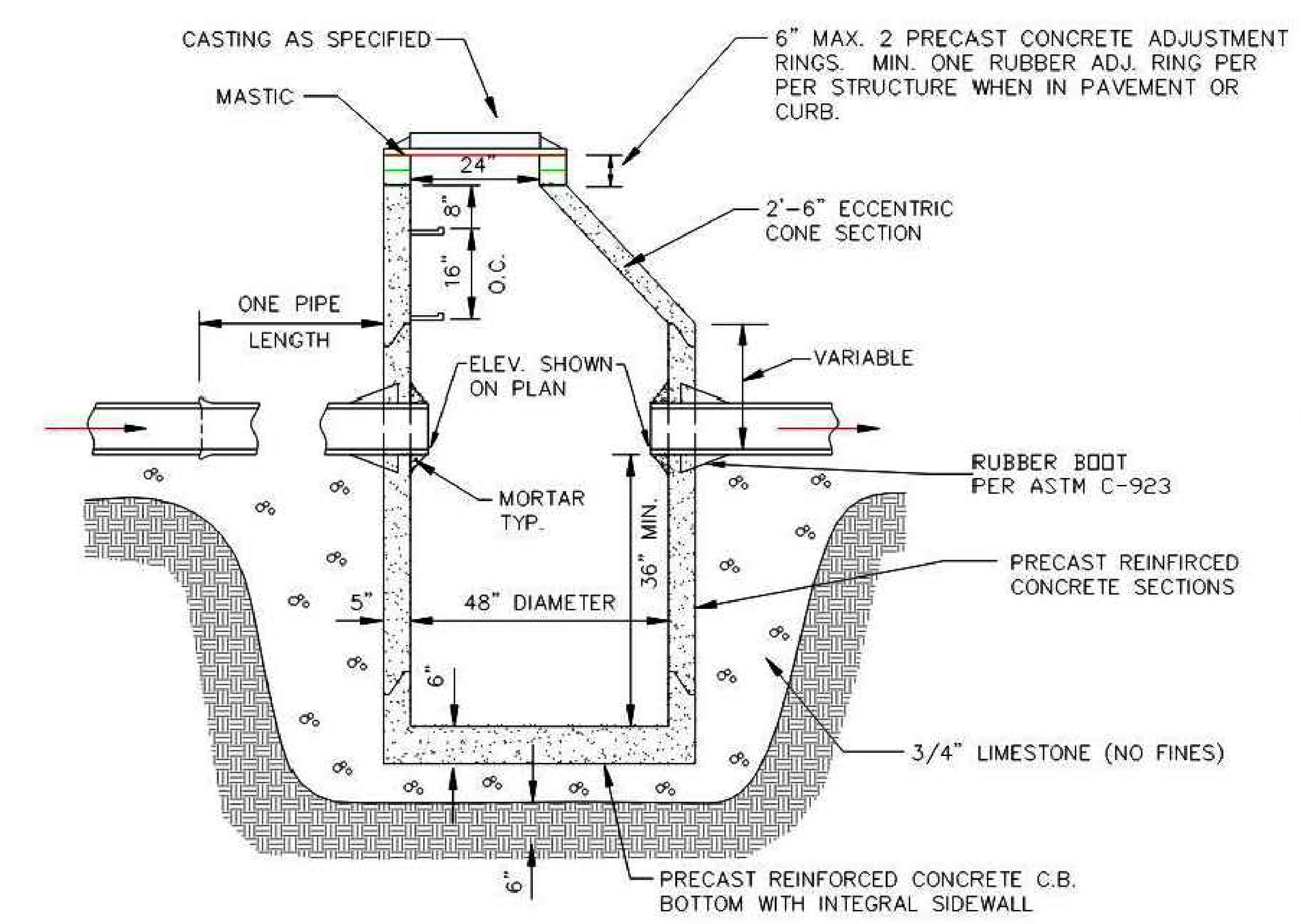
FINAL ENGINEERING PLANS

STANDARD CONSTRUCTION DETAILS

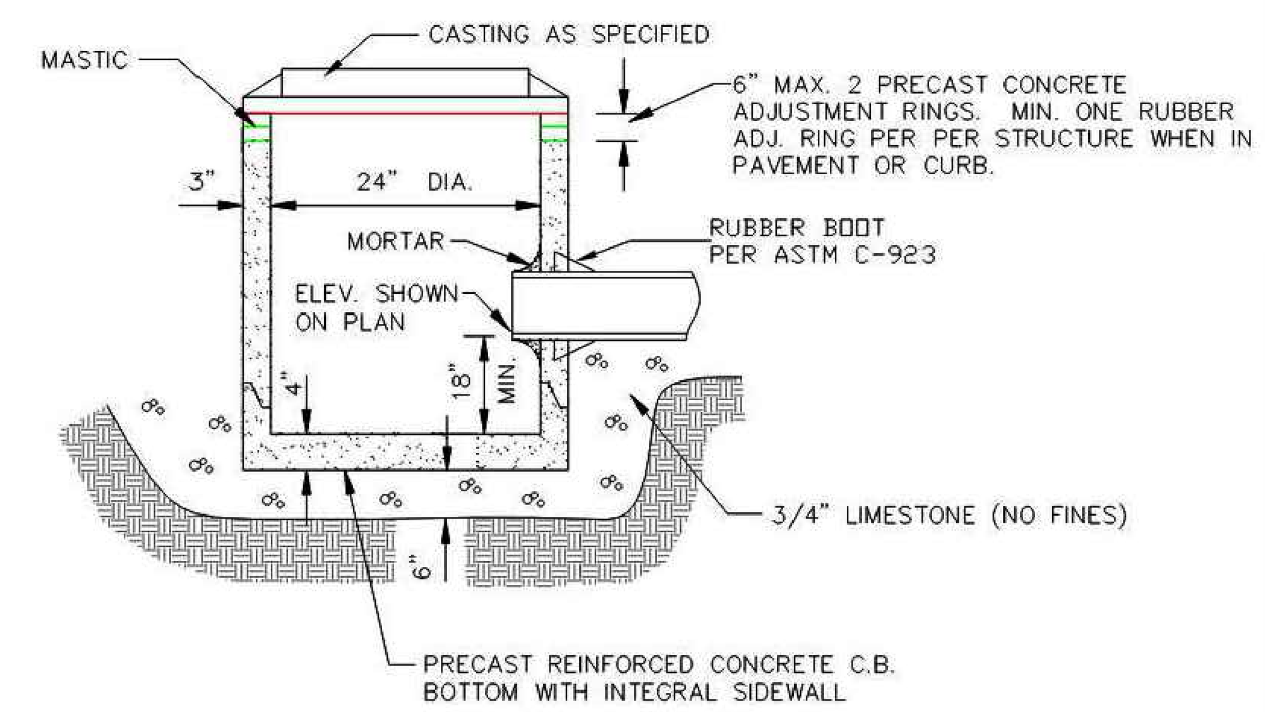
PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 22/26



NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Pipe and frame seals: All pipe connection openings shall be precast with resilient rubber water tight pipe to manhole sleeves or seals conforming to ASTM C-923. Adapter chimney seal with twelve (12) inch sleeve type shall extend from the manhole cone to the manhole frame for all structures in the right-of-way.
3. Sealing: All mating surfaces of adjustment riser(s), structure sections, and frames shall be sealed with a mastic sealant. No concrete mortar or epoxy shall be allowed as a sealant for adjustment risers, structure sections or frames. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit.
4. All bottom sections shall be monolithically precast including bases and invert flowlines.
5. Provide CA-6 aggregate backfill around catch basin to subgrade elevation in paved areas.for subgrade.

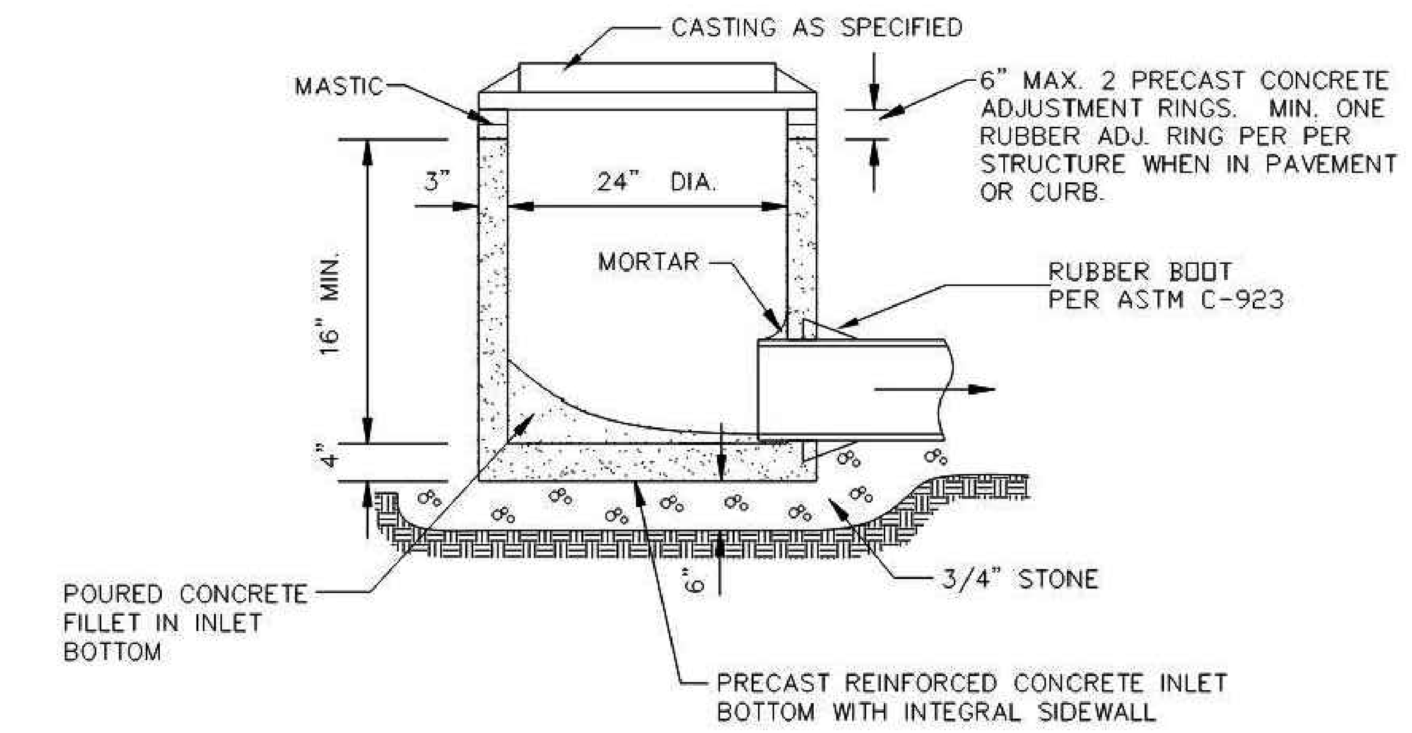
CATCHBASIN TYPE A		
CBASIN_A.DWG / DRAWN BY:	STORM SEWER IMPROVEMENT	DATE: / REVISED:
Village of ORLAND PARK		REVISED: / REVISED: wdc 01-05-12
Engineering Department		DRAWING NO. STS-02



NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Pipe and frame seals: All pipe connection openings shall be precast with resilient rubber water tight pipe to manhole sleeves or seals conforming to ASTM C-923. Adapter chimney seal with twelve (12) inch sleeve type shall extend from the manhole cone to the manhole frame for all structures in the right-of-way.
3. Sealing: All mating surfaces of adjustment riser(s), structure sections, and frames shall be sealed with a mastic sealant. No concrete mortar or epoxy shall be allowed as a sealant for adjustment risers, structure sections or frames. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit.
4. All bottom sections shall be monolithically precast including bases and invert flowlines.
5. Provide CA-6 aggregate backfill around catch basin to subgrade elevation in paved areas.for subgrade.

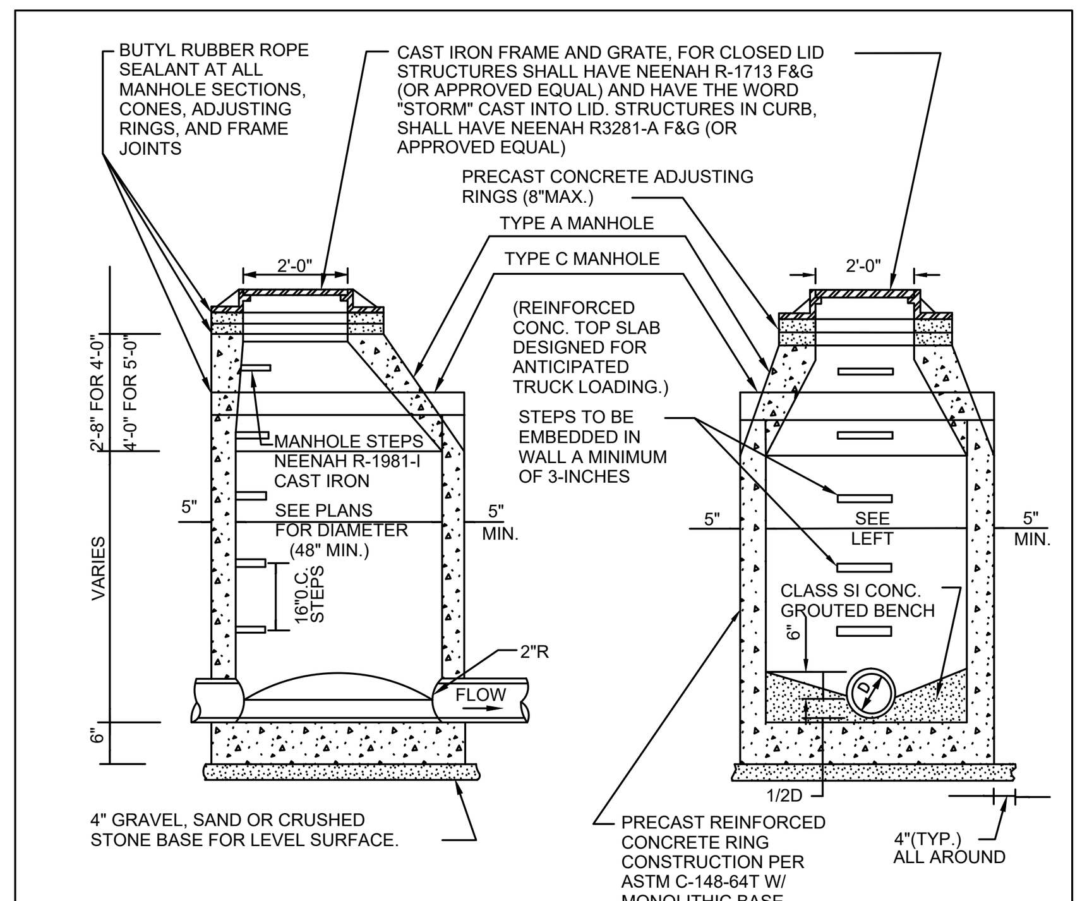
CATCHBASIN TYPE C		
CBASIN_C.DWG / DRAWN BY:	STORM SEWER IMPROVEMENT	DATE: / REVISED:
Village of ORLAND PARK		REVISED: / REVISED: wdc 01-05-12
Engineering Department		DRAWING NO. STS-04



NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Pipe and frame seals: All pipe connection openings shall be precast with resilient rubber water tight pipe to manhole sleeves or seals conforming to ASTM C-923. Adapter chimney seal with twelve (12) inch sleeve type shall extend from the manhole cone to the manhole frame for all structures in the right-of-way.
3. Sealing: All non-rubber mating surfaces, exterior joints of frames, adjustment riser(s), flat slab top or cone section (if applicable) and structure section shall be sealed with a uniform application of bituminous mastic sealant. The mating surfaces of all rubber Adjustment risers shall be sealed with the manufacturer's recommended sealant for rubber adjustment risers. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit. Interior surfaces shall be sealed with concrete mortar or epoxy mortar. Concrete mortar or epoxy mortar will not be used on mating surfaces as a sealant between adjustment risers, structure sections or frames
4. All bottom sections shall be monolithically precast including bases and invert flowlines.
5. Provide CA-6 aggregate backfill around inlet to subgrade elevation in paved areas.for subgrade.

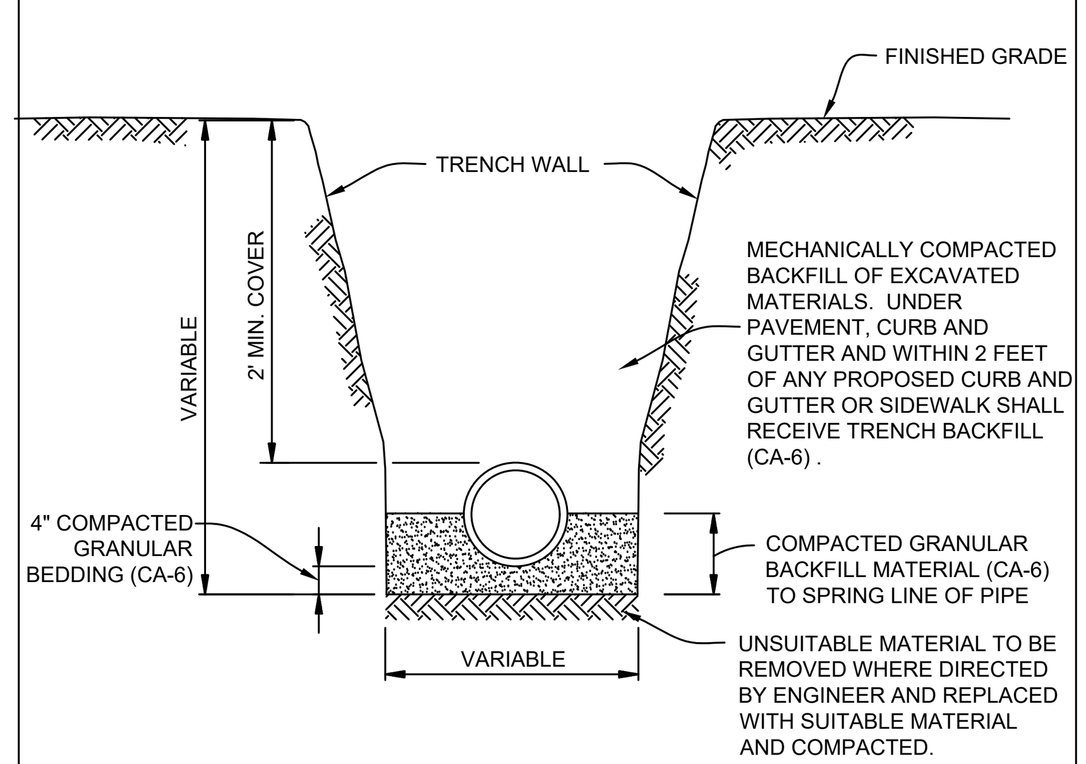
INLET TYPE A		
INLET_A.DWG / DRAWN BY:	STORM SEWER IMPROVEMENT	DATE: / REVISED:
Village of ORLAND PARK		REVISED: / REVISED: wdc 01-05-12
Engineering Department		DRAWING NO. STS-05



NOTES:
1. TYPE A MANHOLES SHALL HAVE ECCENTRIC CONES, TYPE C MANHOLES SHALL HAVE FLAT TOP SLABS.
2. REFER TO PLANS FOR SIZE, ORIENTATION, AND ELEVATION OF ALL PIPE OPENINGS.
3. CONE OPENING AND STEPS SHALL BE LOCATED SO NOT TO BE DIRECTLY OVER PIPE OPENING BUT GENERALLY PERPENDICULAR TO THE WATER FLOW LINE.
4. ALL STRUCTURE SECTIONS AND ADJUSTING RINGS SHALL BE WATER TIGHT BY USE OF RESILIENT, FLEXIBLE, NON-HARDENING, PREFORMED BITUMINOUS MASTIC(RAM-NEK OR APPROVED EQUAL).
5. THE MANHOLE BENCH FOR STORM SEWER MANHOLES SHALL BE IN ACCORDANCE WITH I.D.O.T. REQUIREMENTS. THE BENCH SHALL BEGIN AT THE SPRINGLINE OF THE PIPE.
6. PROVIDE MOLDED INVERT CHANNEL.

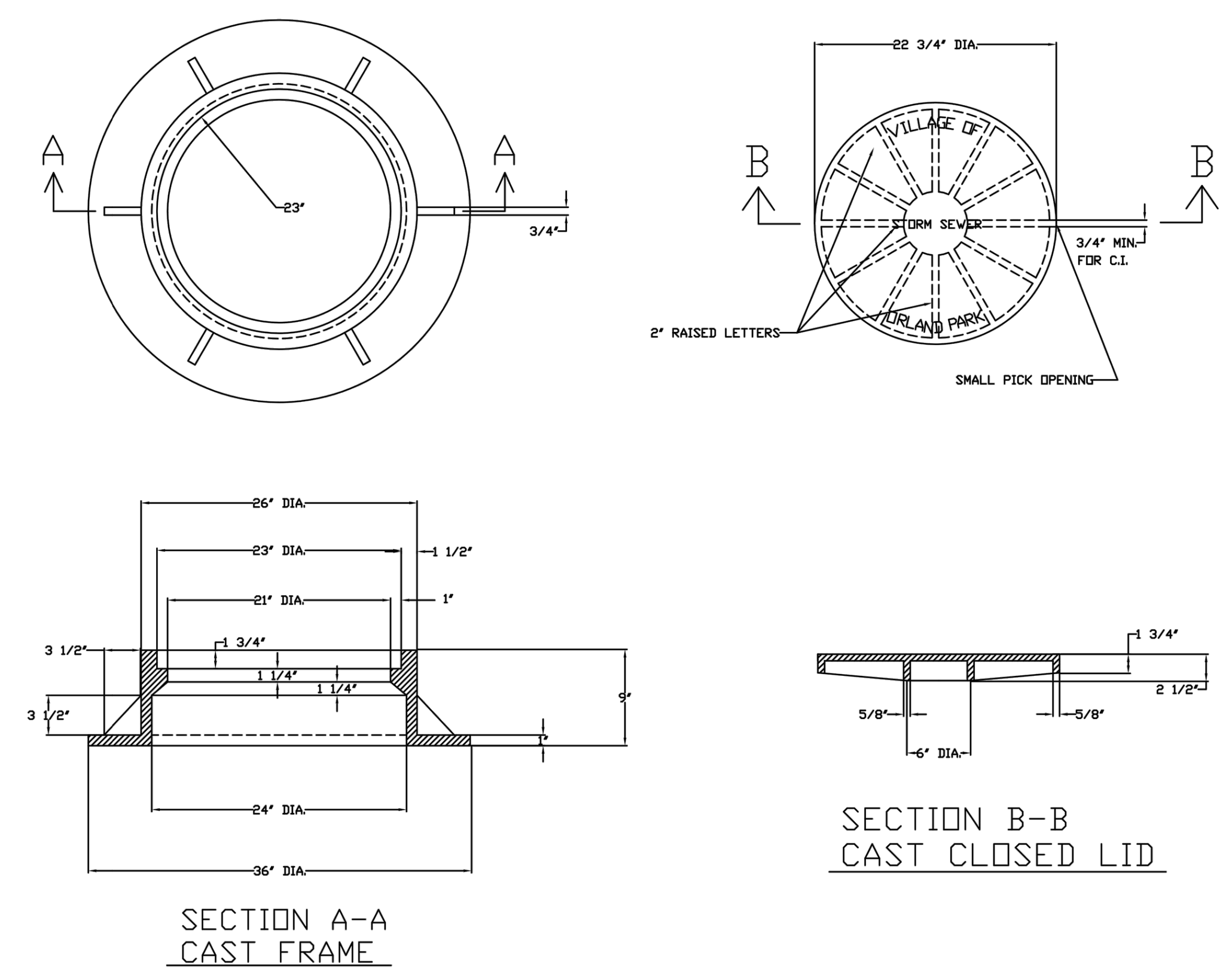
STORM MANHOLE TYPE A OR C

MC - STM6
REVISED: 7/2012



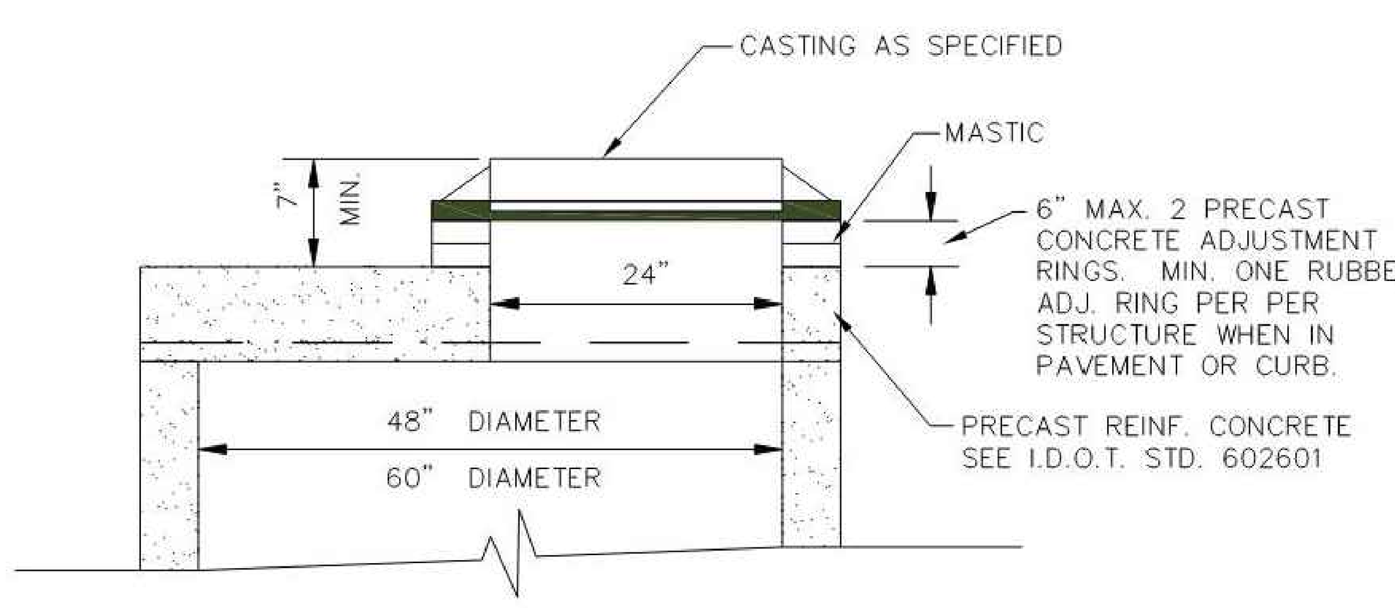
STORM SEWER TRENCH DETAIL

MC - STM17
REVISED: 9/2013



NOTES:
1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL LIDS AND COVERS SHALL BE MACHINED.
3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GRAY IRON LID MAY BE USED.
5. MINIMUM WEIGHTS FOR CASTINGS AS SHOWN.
6. CASTINGS SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME AND 1020A OR 1020M1 COVER OR APPROVED EQUAL.

STORM SEWER FRAME & COVER		
FRAME_CO.DWG / DRAWN BY:	STORM SEWER IMPROVEMENT	DATE: / REVISED: KTL 6-12-13
Village of ORLAND PARK		REVISED: / REVISED:
Engineering Department		DRAWING NO. STS-14



NOTES:

1. Adjustment: Any structure located within pavement shall require the use of at least one (1) rubber adjustment riser, Infra-Riser brand or approved equal, and, if necessary, said riser shall be of the tapered type in order to match the proposed grade of the roadway. No more than two (2) precast concrete adjusting rings with six (6) inch maximum height adjustment shall be allowed. Adjustments within pavement that are less than three (3) inches in height shall consist of only rubber adjustment riser(s). The minimum thickness of a rubber adjustment riser shall be one (1) inch. Adjustments within pavement greater than three (3) inches in height shall use a minimum three (3) inch precast concrete riser for the lower riser, and the final riser shall be of the rubber type.
2. Sealing: All non-rubber mating surfaces, exterior joints of frames, adjustment riser(s), flat slab top or cone section (if applicable) and structure section shall be sealed with a uniform application of bituminous mastic sealant. The mating surfaces of all rubber adjustment risers shall be sealed with the manufacturer's recommended sealant for rubber adjustment risers. If multiple adjustment risers are required, a continuous application of sealant shall be applied between each unit. Interior surfaces shall be sealed with concrete mortar or epoxy mortar. Concrete mortar or epoxy mortar will not be used on mating surfaces as a sealant between adjustment risers, structure sections or frames.

FLAT SLAB TOP		
FLTSLAB.DWG / DRAWN BY:	STORM SEWER IMPROVEMENT	DATE: / REVISED:
Village of ORLAND PARK		REVISED: / REVISED: wdc 01-05-12
Engineering Department		DRAWING NO. STS-06

MeritCorp

DATE:	DESCRIPTION:
05-22-2023	ISSUED FOR REVIEW

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www.meritcorp.com
Other Office Locations:
Gurnee, IL

RIZZA ACURA
8754 W. 159TH STREET
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

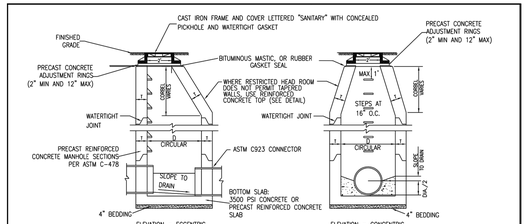
STANDARD CONSTRUCTION DETAILS

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 23/26



REINFORCED CONCRETE TOP

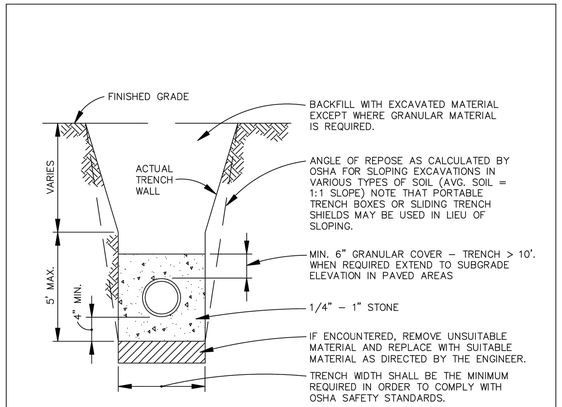
WATER TIGHT JOINT DETAIL

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

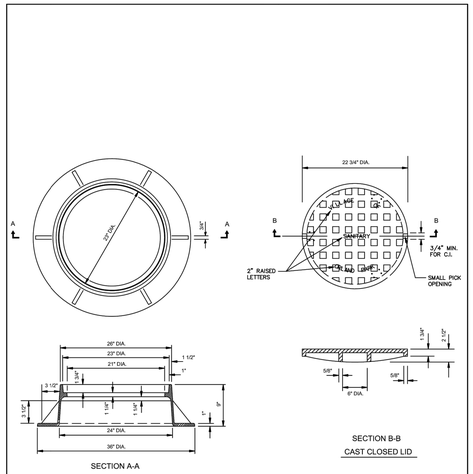
TECHNICAL GUIDANCE MANUAL	7/1/15
TYPICAL SANITARY MANHOLE "A" AND "B" DETAIL	STD. DWG. NO. 39
	PAGE NO. 40



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

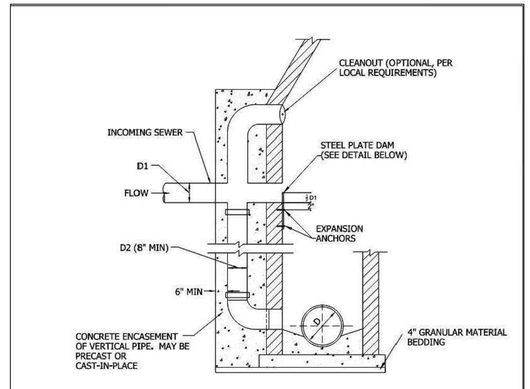
DIP WHEN USED AS SANITARY SEWER SHALL REQUIRE GRANULAR TO TOP OF PIPE.

TRENCH SECTION SANITARY SEWER		
SANITRENCH.DWG	SANITARY SEWER IMPROVEMENT	DATE:
DRAWN BY:		REVISED:
Village of CRAND PARK		REVISED:
		REVISED:
Engineering Department		SS-06



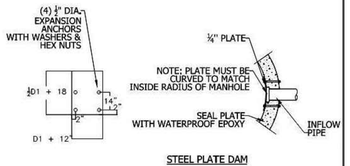
1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 & SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. CASTINGS SHALL BE EAST JORDAN IRON WORKS 102221 FRAME AND 1020A HD QS COVER.

SANITARY MANHOLE FRAME & COVER		
MANHLFRM.DWG	SANITARY SEWER IMPROVEMENT	DATE: 7/13/2006
DRAWN BY: MDC		REVISED: 1/3/2017 ATL
Village of CRAND PARK		REVISED:
		REVISED:
Public Works Department		SS-04



NOTES:
1. REQUIRED FOR 2FT. OR GREATER DROP TO SANITARY OR COMBINED SEWER.
2. MINIMUM WALL THICKNESS IS 6" FOR CAST IN PLACE CONCRETE STRUCTURES AND 1/12 MANHOLE DIAMETER FOR PRECAST CONCRETE STRUCTURES.
3. CONCRETE FOR ENCASEMENT SHALL BE 4,000 PSI @ 28 DAYS.
4. FORCEMAIN FLOW NOT ALLOWED AS INCOMING SEWER, SEE FORCEMAIN DISCHARGE DETAIL.

DIAMETER (INCHES)	
D1	D2
6	8
8	8
10	8
12	8
15	10
18	12
21	15
24	18



STEEL PLATE DAM

NOTES:
1. PLATE AND FASTENERS MUST BE FABRICATED IN STAINLESS STEEL, DUCTILE IRON, OR EQUIVALENT WATERPROOF/WEATHER PROOF MATERIALS.
2. BOLTS TACK WELDED TO PLATE.
3. ANCHOR EMBEDMENT: 3" MIN.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL	7/1/15
TYPICAL DROP MANHOLE CONNECTION	STD. DWG. NO. 33
	PAGE NO. 34

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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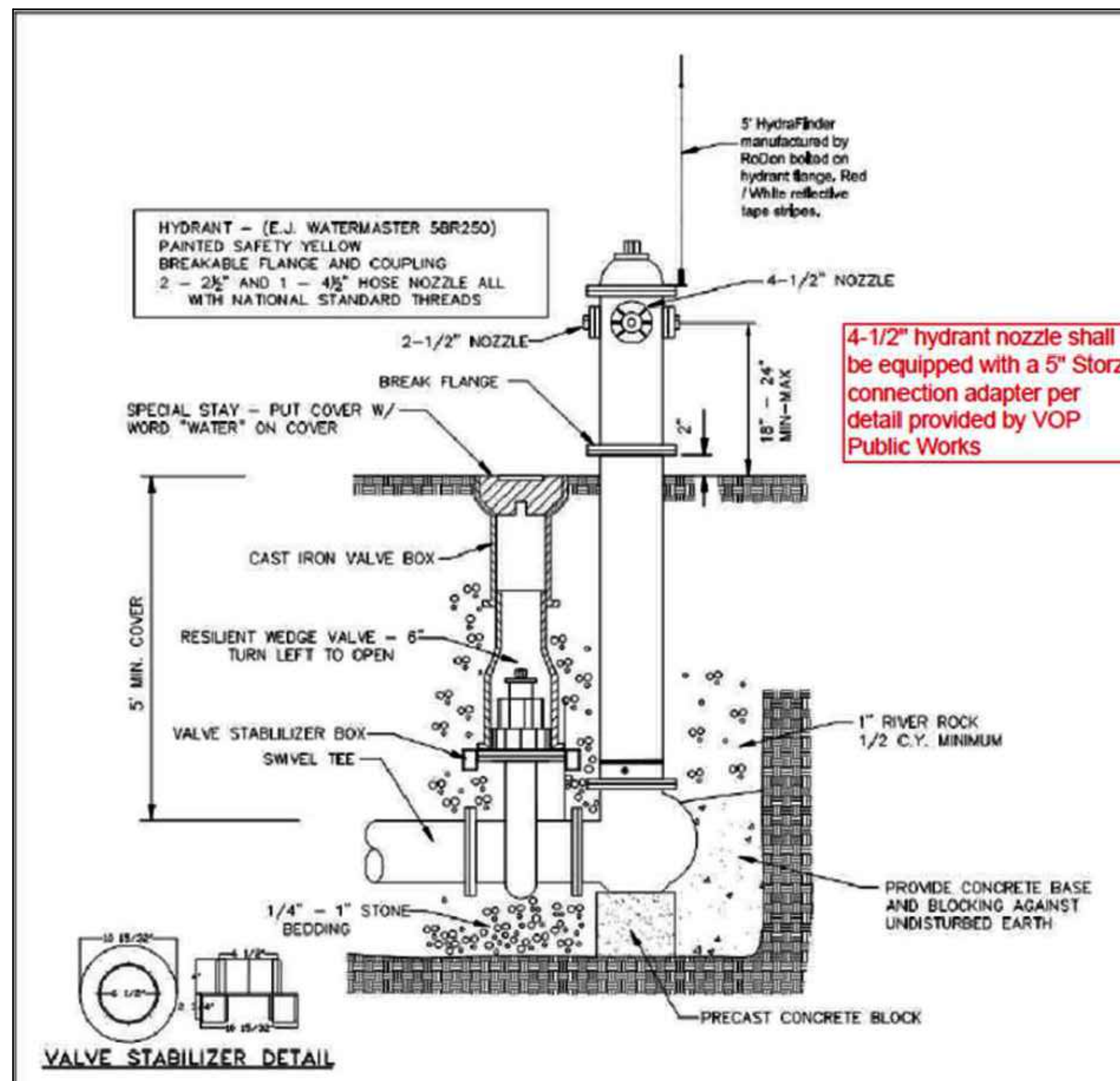
RIZZA ACURA
8754 W. 159TH STREET
ORLAND PARK, ILLINOIS 60462

FINAL ENGINEERING PLANS

STANDARD CONSTRUCTION DETAILS

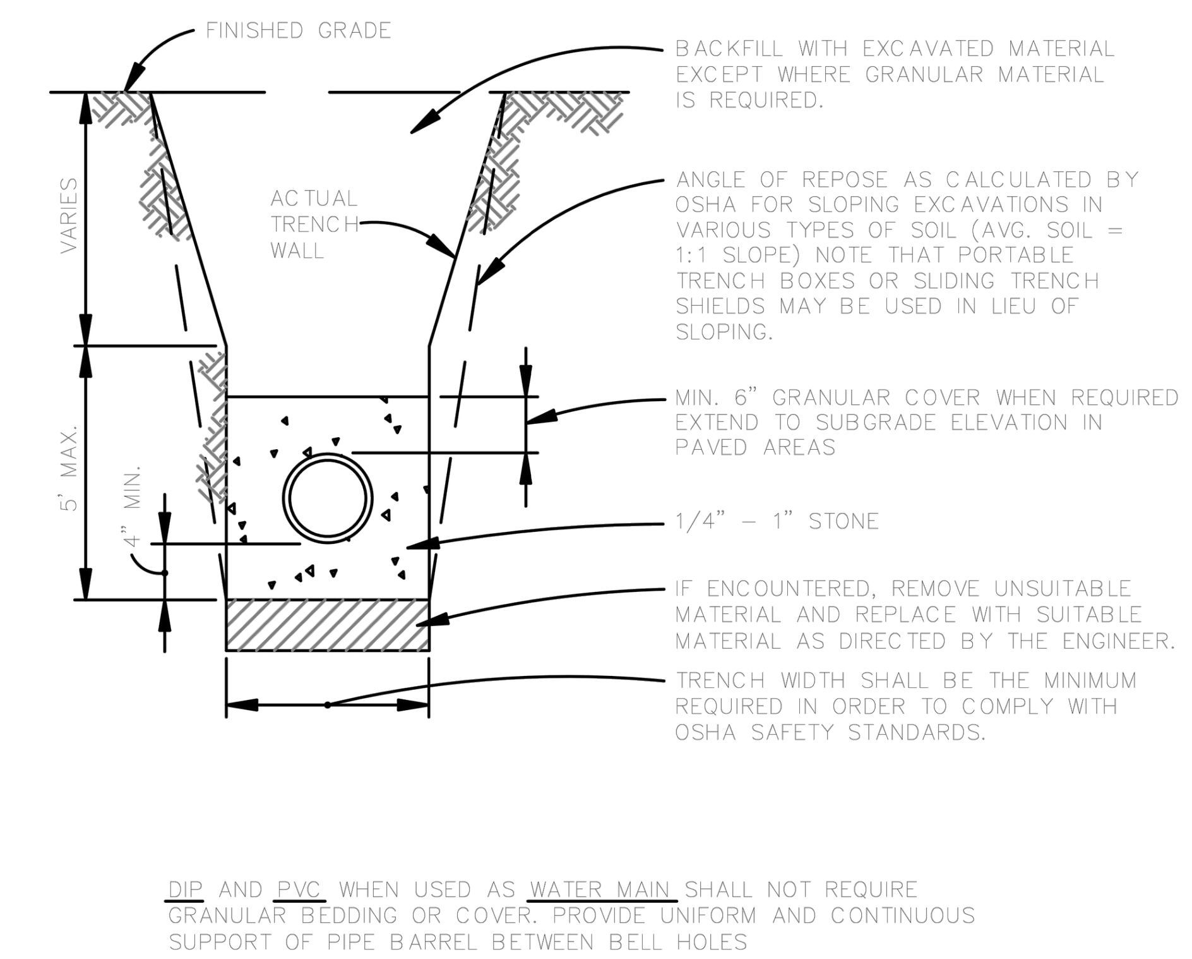
PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 24/26



Notes:

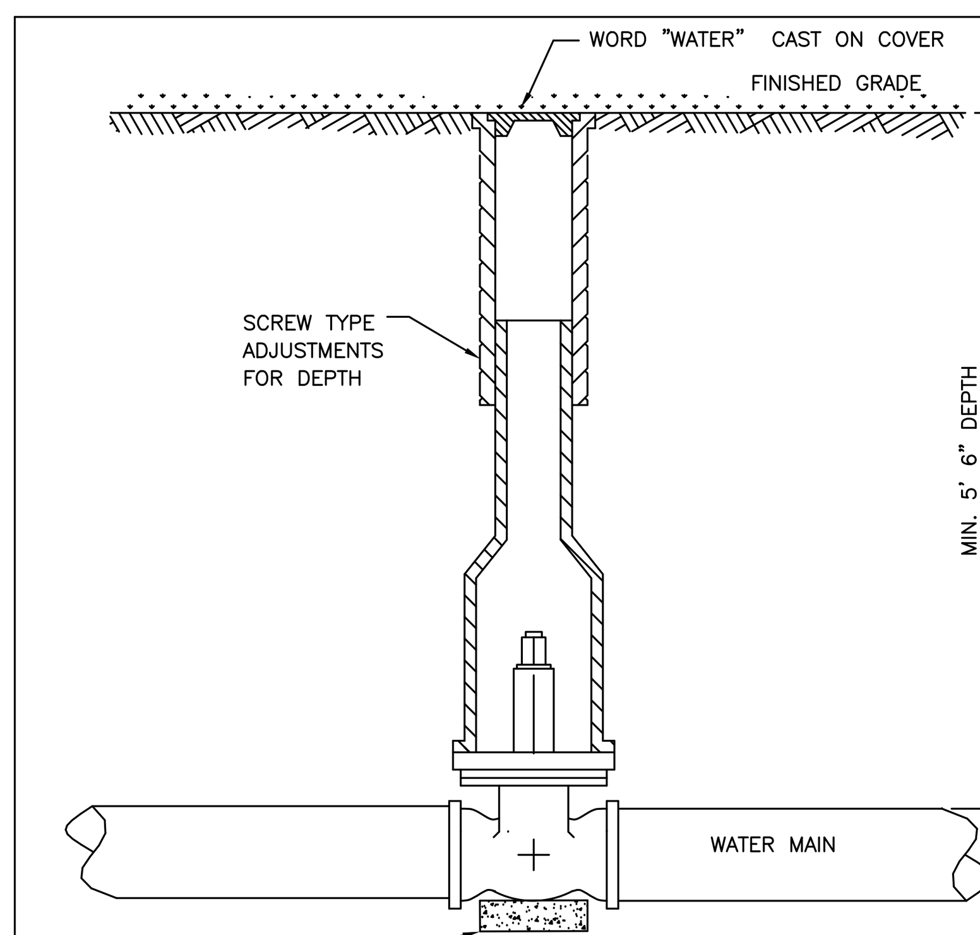
1. If depth of main is greater than 8' then the hydrant and auxiliary valve must be brought to the proper depth using 90 degree bends.
2. Adjustments to existing or proposed hydrants shall not exceed a total of 3'. See Note #1 for adjustments that have a total of adjustments greater than 3'.
3. Use swivel 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
WATER MAIN IMPROVEMENT
Village of ORLAND PARK
Engineering Department
DATE: 4/24/06
REVISED: wdb
REVISED: edc 12-01-14
REVISED: edc 1-04-16
WM-06



DIP AND PVC WHEN USED AS WATER MAIN SHALL NOT REQUIRE GRANULAR BEDDING OR COVER. PROVIDE UNIFORM AND CONTINUOUS SUPPORT OF PIPE BARREL BETWEEN BELL HOLES

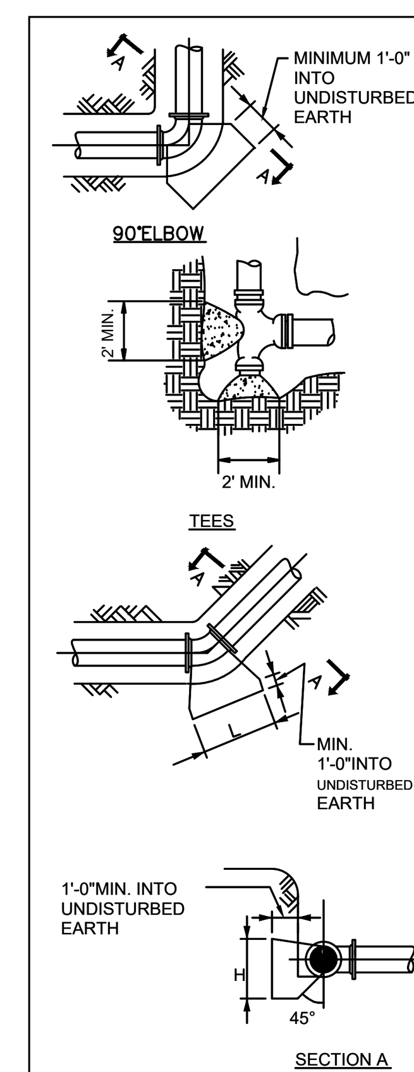
TRENCH SECTION (WATER MAIN)
WATTRENCH.DWG
DRAWN BY:
WATER MAIN IMPROVEMENT
Village of ORLAND PARK
Engineering Department
DATE:
REVISED:
REVISED:
REVISED:
WM-11



NOTE:
RESTRAINT GLANDS REQUIRED ON EACH SIDE OF VALVE IF STUBBED FOR FUTURE CONNECTION OR PIPE BEND WITHIN TWO PIPE LENGTHS OF VALVE

VALVE BOX INSTALLATION

MC - W8
REVISED: 7/2012



NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER.

2. ALL BLOCKING SHALL BE WITH POURED CLASS SI (3000 PSI) CONCRETE A MINIMUM OF 12" THICK PLACED AGAINST UNDISTURBED EARTH SURFACE AND FITTING.

3. DIMENSIONS OF THRUST BLOCKS ARE BASED ON 2000PSF SOIL BEARING CAPACITY, WORKING PRESSURE OF 100 PSIG AND A SAFETY FACTOR OF 1.5.

4. ALL BLOCKING SHALL BE POURED INTO UNDISTURBED EARTH.

5. ALL BENDS OR ELBOWS 0F 11 1/4^ OR GREATER SHALL HAVE THRUST BLOCKING.

6. IF ADEQUATE UNDISTURBED BEARING AREA CANNOT BE OBTAINED, USE CONCRETE THRUST BLOCKS IN COMBINATION WITH RESTRAINED AND/OR TIED JOINTS.

7. THRUST BLOCKS SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTINGS WILL BE ACCESSIBLE FOR REPAIRS.

PIPE SIZE INCHES	DEGREE OF BEND	MINIMUM CONCRETE ANCHOR BLOCK DIMENSIONS-FEET WORKING PRESSURE									
		75PSI		100PSI		125PSI		150PSI		175PSI	
		L	H	L	H	L	H	L	H	L	H
6"	90	2.5	1.0	2.5	1.5	2.0	2.0	2.5	2.0	3.0	2.0
	45	1.5	1.0	2.0	1.0	2.0	1.0	2.5	1.0	2.0	1.5
	22.5	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5	1.0
	11.25	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5	1.0
8"	90	2.0	2.0	2.5	2.5	3.0	2.5	4.0	2.0	4.0	2.5
	45	2.5	1.0	2.0	1.5	2.0	2.0	2.5	2.0	2.5	2.0
	22.5	1.5	1.0	1.5	1.0	2.0	1.0	2.5	1.0	2.0	1.5
	11.25	1.5	1.0	1.5	1.0	2.0	1.0	2.5	1.0	2.0	1.5
10"	90	3.0	3.0	4.0	3.0	5.0	3.0	5.0	4.0	5.5	4.0
	45	2.5	2.0	3.5	2.0	4.0	2.5	4.0	2.5	4.0	3.0
	22.5	2.5	1.0	2.5	1.5	2.5	2.0	2.5	2.0	3.0	2.0
	11.25	2.5	1.0	2.5	1.5	2.5	2.0	2.5	2.0	3.0	2.0
12"	90	3.0	3.0	4.0	3.0	5.0	3.0	5.0	4.0	5.5	4.0
	45	2.5	2.0	3.5	2.0	4.0	2.5	4.0	2.5	4.0	3.0
	22.5	2.5	1.0	2.5	1.5	2.5	2.0	2.5	2.0	3.0	2.0
	11.25	2.5	1.0	2.5	1.5	2.5	2.0	2.5	2.0	3.0	2.0
16"	90	5.0	3.5	5.5	4.0	6.0	4.5	7.5	4.5	7.5	5.0
	45	4.0	2.5	4.0	3.0	5.0	3.0	5.0	3.5	5.0	4.5
	22.5	2.5	2.0	3.0	2.0	3.0	2.5	3.0	3.0	4.0	3.0
	11.25	2.5	2.0	3.0	2.0	3.0	2.5	3.0	3.0	4.0	3.0
20"	90	5.5	4.5	6.5	5.5	7.5	5.5	8.5	6.0	9.5	6.0
	45	4.0	3.5	5.0	4.0	5.5	4.0	6.0	4.5	7.0	4.5
	22.5	3.0	2.5	3.5	3.0	4.0	3.0	4.5	3.0	5.5	3.0
	11.25	3.0	2.5	3.5	3.0	4.0	3.0	4.5	3.0	5.5	3.0
24"	90	6.5	5.5	8.0	6.0	9.5	6.5	11.0	6.5	13.0	6.5
	45	5.0	4.0	5.5	5.0	7.5	4.5	7.0	5.5	9.0	5.0
	22.5	3.5	3.0	4.0	3.5	5.0	3.5	5.0	4.0	6.0	4.0
	11.25	3.5	3.0	4.0	3.5	5.0	3.5	5.0	4.0	6.0	4.0

THRUST BLOCK DETAIL

MC - W4
REVISED: 7/2012

MeritCorp GROUP, LLC

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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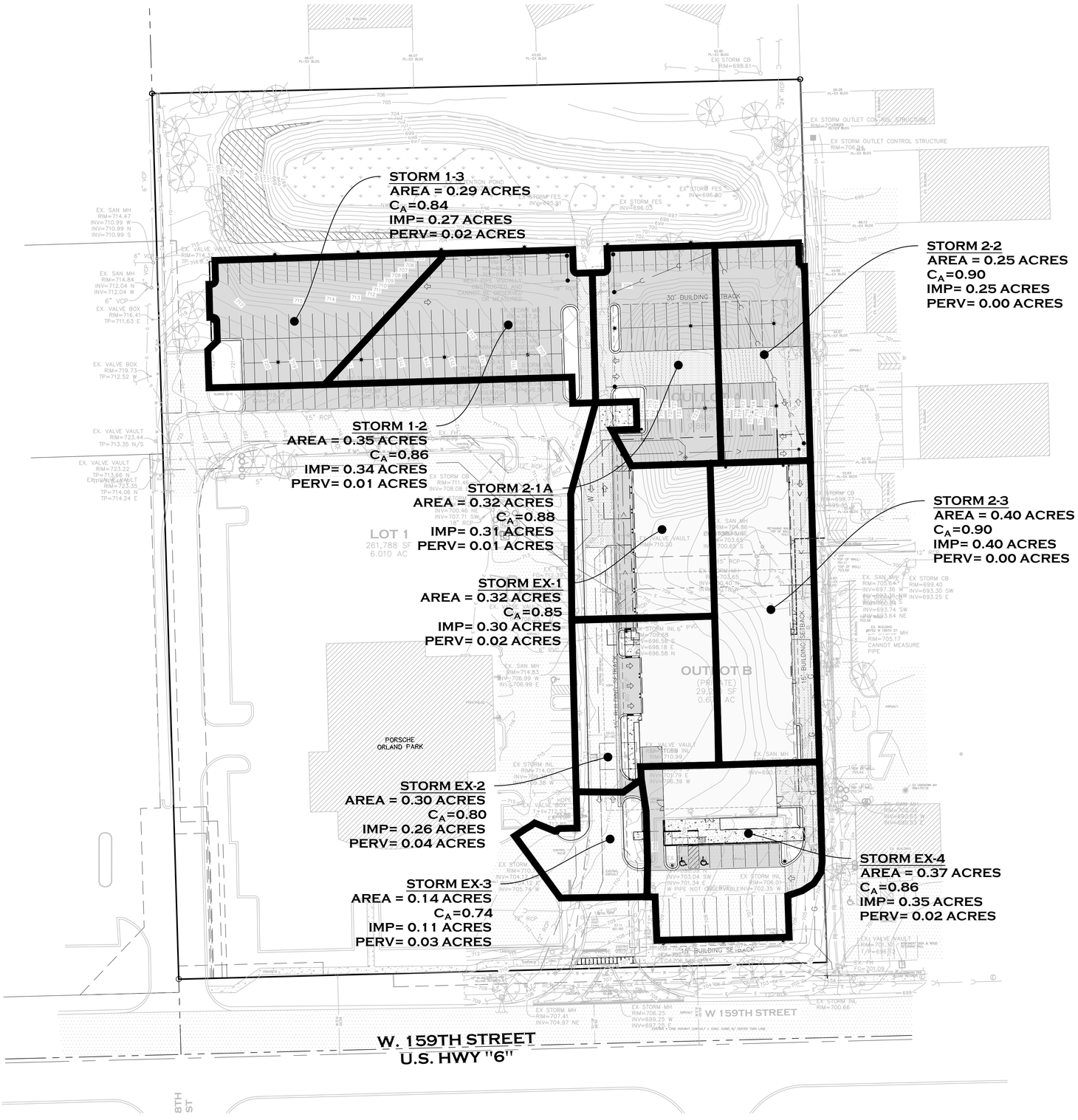
RIZZA ACURA
8754 W. 159TH STREET
ORLAND PARK, ILLINOIS 60462
FINAL ENGINEERING PLANS
STANDARD CONSTRUCTION DETAILS

PROJECT NO. M21149
DRAWN BY: ZDS & NFY
CHECKED BY: TDR
SHEET NO. 25/26



NORTH

30 0 15 30

1" = 30'
GRAPHIC SCALE

LEGEND

TRIBUTARY AREA BOUNDARY

DATE: 05-22-2023
DESCRIPTION: ISSUED FOR REVIEW

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FINAL ENGINEERING PLANS

MWRD STORM SEWER DRAINAGE AREA EXHIBIT

PROJECT NO. M21149

DRAWN BY: ZDS & NFY

CHECKED BY: TDR

SHEET NO. 26/26

FOR REFERENCE ONLY

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