

PRELIMINARY AND FINAL ENGINEERING PLANS

FOXFORD STATION

VILLAGE OF WESTERN SPRINGS, ILLINOIS

LEGEND	
EXISTING	PROPOSED
SANITARY SEWER 8" PVC	8" PVC
FORCE MAIN 12" RCP	12" RCP
STORM SEWER 12" RCP	12" RCP
UNDERDRAIN UD	UD
MANHOLE	⊙
CATCH BASIN	⊙
INLET	⊙
CLEANOUT	⊙
WATER MAIN 8" WM	8" WM
VALVE VAULT	⊙
VALVE BOX	⊙
FIRE HYDRANT	⊙
FLARED END SECTION	⊙
COMBINED SEWER	⊙
STREET LIGHT/PARKING LOT LIGHT	⊙
POWER POLE	⊙
STREET SIGN	⊙
FENCE	⊙
GAS MAIN	⊙
OVERHEAD LINE	⊙
TELEPHONE LINE	⊙
ELECTRIC LINE	⊙
CABLE TV LINE	⊙
HIGH WATER LEVEL HWL XXX	HWL XXX
NORMAL WATER LEVEL NWL XXX	NWL XXX
CONTOUR LINE XXX.XX	XXX.XX
TOP OF CURB ELEVATION BC XXX.XX	TC XXX.XX
TOP OF DEPRESSED CURB BC XXX.XX	TDC XXX.XX
PAVEMENT ELEVATION P XXX.XX	P XXX.XX
SPOT ELEVATION XXX.XX	XXX.XX
FINISHED FLOOR ELEVATION FP + XXX.XX	FP + XXX.XX
TOP OF FOUNDATION TP + XXX.XX	TP + XXX.XX
GRADE AT FOUNDATION GF + XXX.XX	GF + XXX.XX
HIGH OR LOW POINT	⊙
OVERLAND FLOOD ROUTE	⊙
PAVEMENT FLOW DIRECTION	→
SWALE FLOW DIRECTION	→
DEPRESSED CURB AND GUTTER	→
REVERSE CURB AND GUTTER	→

INDEX	
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	DEMOLITION PLAN
4	GRADING AND STORMWATER POLLUTION PREVENTION PLAN
5	STORMWATER POLLUTION PREVENTION DETAILS AND SPECIFICATIONS
6	PAVING PLAN
7	UTILITY PLAN
8	CONSTRUCTION DETAILS
9	CONSTRUCTION DETAILS
10	PROJECT SPECIFICATIONS



ABBREVIATIONS			
AC	ACRE	HWL	HIGH WATER ELEVATION
BC	BACK OF CURB	INL	INLET
BTM	BOTTOM	INV	INVERT
CB	CATCH BASIN	LF	LINEAL FEET/FOOT
CFS	CUBIC FEET PER SECOND	LP	LIGHT POLE
CY	CUBIC YARD	LT	LEFT
DIA	DIAMETER	L/W	LOWEST GRADE ADJACENT TO RETAINING WALL
DIWM	DUCTILE IRON WATER MAIN	MAX	MAXIMUM
EL	ELEVATION	MH	STORM MANHOLE
EP	EDGE OF PAVEMENT	MIN	MINIMUM
FF	FINISHED FLOOR	NWL	NORMAL WATER ELEVATION
FES	FLARED END SECTION	OCS	OUTLET CONTROL STRUCTURE
FT	FOOT/FEET	P	PAVEMENT ELEVATION
G	GUTTER ELEVATION	PVC	POLYVINYL CHLORIDE PIPE
GF	GRADE AT FOUNDATION	R	RADIUS
GR	GRADE RING ELEVATION	RCP	REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE	RIM	RIM ELEVATION
HYD	FIRE HYDRANT	RT	RIGHT
HMA	HOT MIX ASPHALT	ROW	RIGHT OF WAY
SAN	SANITARY SEWER	SMH	SANITARY MANHOLE
STA	STATION	STM	STORM SEWER
SY	SQUARE YARD	SWPP	STORMWATER POLLUTION PREVENTION PLAN
SWPP	STORMWATER POLLUTION PREVENTION PLAN	TDC	TOP OF DEPRESSED CURB
TDC	TOP OF DEPRESSED CURB	TC	TOP OF CURB
TC	TOP OF CURB	TF	TOP OF FOUNDATION
TF	TOP OF FOUNDATION	T/W	TOP OF RETAINING WALL
TYP	TYPICAL	TYP	TYPICAL
VB	VALVE BOX	VC	VERTICAL CURVE
VC	VERTICAL CURVE	VV	VALVE VAULT
VV	VALVE VAULT	W	WALK ELEVATION
W	WALK ELEVATION	WM	WATER MAIN
WM	WATER MAIN	VPI	VERTICAL POINT OF INTERSECTION

SOURCE BENCHMARK:
 NGS MONUMENT PID #ME1716
 LOCATED AT THE NORTHWEST CORNER OF 55th STREET,
 AND WOLF ROAD, 80' NORTH OF THE CENTERLINE OF
 55th STREET, 40' WEST OF THE CENTERLINE OF WOLF ROAD,
 AND 42.5' NORTHEAST OF A TRAFFIC SIGNAL POST. MONUMENT
 IS A BRONZE DISK SET IN THE TOP OF A CONCRETE MONUMENT
 PROJECTING 0.3' ABOVE GROUND.
 ELEVATION = 662.19 (NAVD 88)

SITE BENCHMARK #1:
 CUT CROSS ON SOUTH FLANGE BOLT OF FIRE HYDRANT.
 LOCATED ON SOUTHWEST CORNER OF BURLINGTON AV.
 AND JOHNSON AV.
 ELEVATION = 670.23

SITE BENCHMARK #2:
 CUT CROSS ON NORTH FLANGE BOLT OF FIRE HYDRANT.
 LOCATED ON THE WEST SIDE OF JOHNSON AV. AND ABOUT
 250' +/- SOUTH OF BURLINGTON AV
 ELEVATION = 668.31



THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS, SUPERVISION / DIRECTION AND MEANS / METHODS OF CONSTRUCTION

DRAINAGE CERTIFICATION

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF SAID IMPROVEMENTS OR ANY PART THEREOF, OR, THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREA OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE IMPROVEMENTS.

ENGINEER'S SIGNATURE

ENGINEER'S SEAL

1/27/2016 12:48:06 PM M:\2222\Engineering\Photos\Library\10-cover.pdf

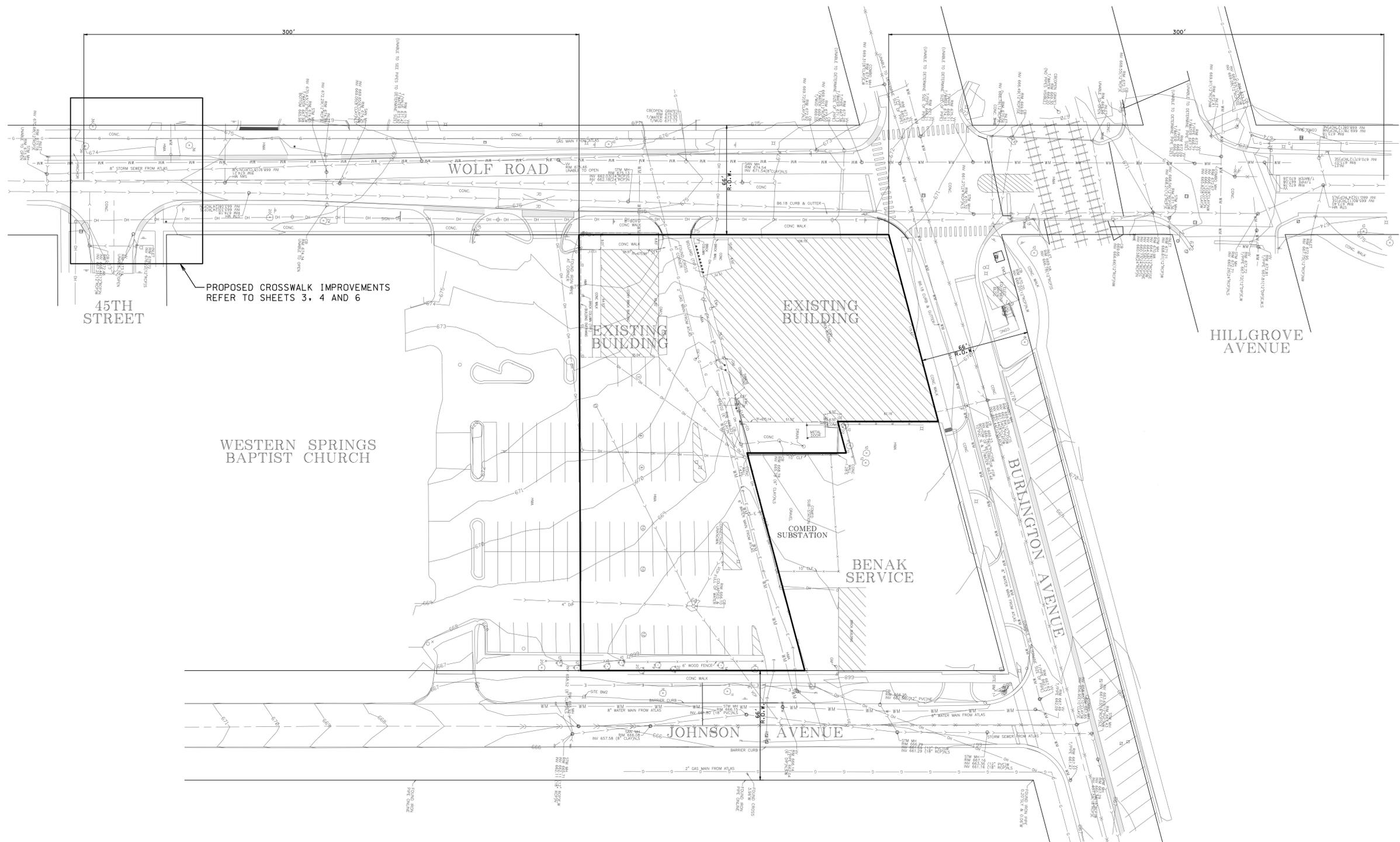
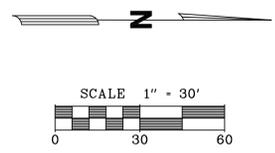


CLIENT:
FOXFORD STATION, LLC
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY	SCALE
01-29-16	REVISED PER OWNER	TKB	DRAWN WHM
01-14-16	REVISED PER CLIENT COMMENTS	TKB	APPROVED TKB
12-07-15	REVISED BUILDING CONFIGURATION	TKB	DATE 07-25-14
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	SCALE N.T.S.
10-24-14	REVISED PER VILLAGE COMMENTS	RDB	

COVER SHEET
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
1 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



1/27/2016 1:56:17 PM M:\2222\Engineering\Info\Layout\02-existing_conditions.plt

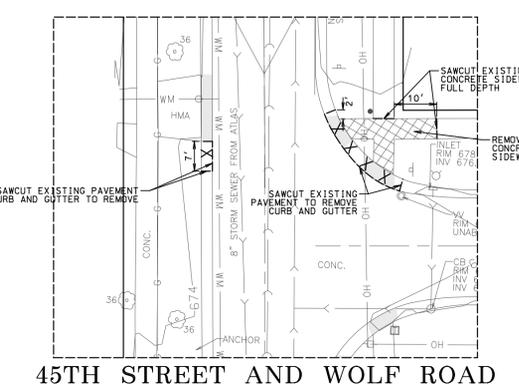
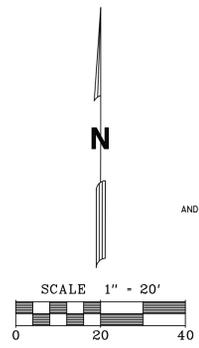
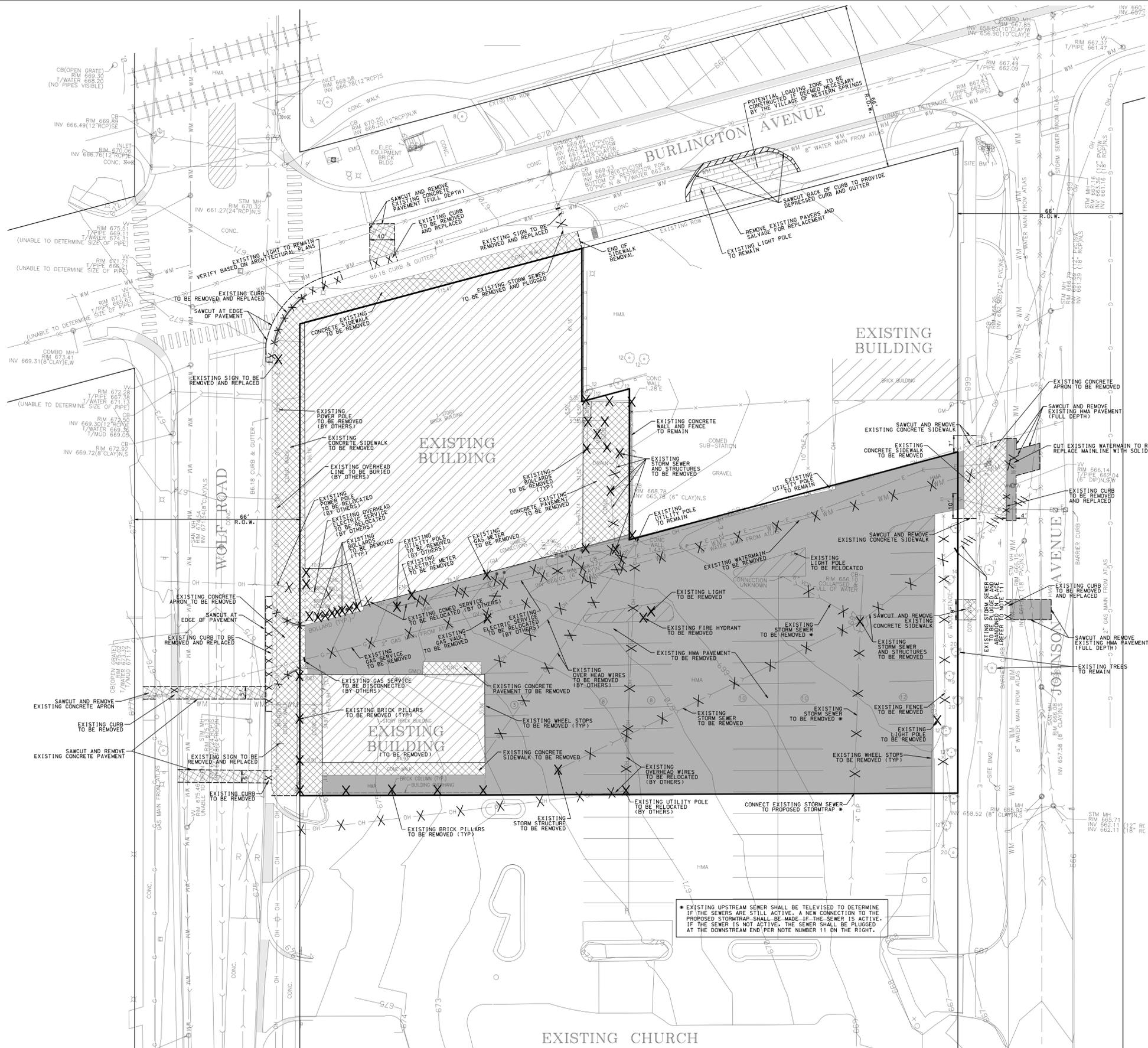
Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT:
FOXFORD STATION, LLC
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY	SCALE
01-14-16	REVISED PER CLIENT COMMENTS	TKB	DATE 07-25-14
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	SCALE 1" = 30'

EXISTING CONDITIONS PLAN
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
2 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS, LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



LEGEND

EXISTING BUILDING TO BE REMOVED	
EXISTING CONCRETE TO BE REMOVED	
EXISTING HMA PAVEMENT TO BE REMOVED	
EXISTING CURB TO BE REMOVED	
EXISTING UTILITY TO BE REMOVED	
EXISTING UTILITY TO BE ABANDONED	
EXISTING STRUCTURE, TREE, MISCELLANEOUS OBJECT TO BE REMOVED	
SAWCUT	

- DEMOLITION PLAN GENERAL NOTES:**
- CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR DEMOLITION WORK AND ASSOCIATED UTILITY DISCONNECT FEES.
 - THE MUNICIPALITY AND THE OWNER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - THIS PLAN WAS PREPARED FROM TOPOGRAPHIC SURVEY OBTAINED BY MACKIE CONSULTANTS, LLC, DATED DECEMBER 13, 2012, JUNE 19, 2014 AND DECEMBER 31, 2014 AND ALL AVAILABLE RECORDS. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES SHOWN AND NOT SHOWN BEFORE COMMENCING WORK AND NOTIFY THE ENGINEER OR OWNER OF ANY DISCREPANCIES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO BEGINNING DEMOLITION WORK FOR THE EXACT LOCATIONS OF THE UTILITIES. THE CONTRACTOR SHALL ARRANGE FOR THE DISCONNECTION, PROTECTION OR RELOCATION OF ANY EXISTING UTILITY SERVICES, INCLUDING WATER, SEWER, GAS, ELECTRIC, TELEPHONE AND CABLE.
 - THE CONTRACTOR IS REQUIRED TO ASSURE HIMSELF OF LOCATION AND DEPTH OF EXISTING UTILITIES AND RELATED FEATURES AND SHALL REPORT AT ONCE TO THE OWNER OR ENGINEER ANY DISCREPANCIES WITH RESPECT TO INFORMATION INDICATED IN THE CONTRACT DOCUMENTS.
 - ALL BITUMINOUS PAVEMENT AND BUILDING MATERIALS SHALL BE REMOVED TO AN OFFSITE LOCATION. GRAVEL BASE MATERIALS MAY BE STOCKPILED ON-SITE AND USED FOR TEMPORARY ROADS OR GENERAL FILL, AS APPROVED BY THE OWNER. ANY BASE MATERIALS REMAINING UPON COMPLETION OF THE PROPOSED IMPROVEMENTS SHALL BE HAULED TO AN OFFSITE LOCATION.
 - ALL UTILITIES TO REMAIN AS NOTED SHALL BE ADJUSTED TO THE FINAL GRADES AS PROVIDED ON THE UTILITY PLANS.
 - GAS, TELEPHONE AND ELECTRIC DISTRIBUTION SYSTEM REMOVALS AND ADJUSTMENTS SHALL BE DONE BY RESPECTIVE UTILITY AND PAID FOR SEPARATELY BY OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THIS WORK INCIDENTAL TO THE CONTRACT. ALL ENVIRONMENTAL REMEDIATION WILL BE COMPLETED BY OWNER PRIOR TO START OF CONSTRUCTION.
 - ALL EXISTING UTILITIES ARE TO REMAIN IN SERVICE UNLESS SPECIFICALLY SHOWN TO BE REMOVED.
 - ALL PIPES TO BE ABANDONED IN PLACE SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FEET NON-SHRINK CONCRETE MORTAR PLUGS. ANY STRUCTURES TO REMAIN SHALL HAVE THE BOTTOM BROKEN TO FACILITATE DRAINAGE AND FILLED WITH SAND OR PEA GRAVEL.
 - ALL EXISTING TREES, BRUSH, AND MISCELLANEOUS APPURTENANCES, SUCH AS FENCES, WHEEL STOPS, POLES LIGHTS AND MISCELLANEOUS DEBRIS SHALL BE HAULED TO AN OFFSITE LOCATION.
 - THE CONTRACTOR SHALL ENSURE THAT ALL ADJOINING AREAS, INCLUDING ADJACENT STREETS AND DRIVEWAYS, SHALL BE FREE OF DEBRIS AT ALL TIMES.
 - PAVEMENT, CURB AND GUTTER AND SIDEWALK SHALL BE SAWCUT FULL DEPTH AT THE LIMITS OF REMOVAL.
 - ALL TREES TO REMAIN SHALL BE PROTECTED WITH SILT FENCE OR ORANGE CONSTRUCTION FENCES. PROTECTIVE FENCING SHALL BE PLACED AT THE DRIP LINE OF THE TREE TO BE SAVED. CONSTRUCTION WITHIN THE FENCE WITHOUT PERMISSION FROM THE OWNER OR MUNICIPALITY IS STRICTLY PROHIBITED.
 - ANY DAMAGE DONE TO EXISTING STRUCTURES OR OBJECTS NOT SHOWN TO BE REMOVED OR REPLACED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - ALL UTILITIES AND STRUCTURES LOCATED WITHIN 5 FEET OF THE PROPOSED BUILDING SHALL BE COMPLETELY REMOVED AND THE EXCAVATION BACKFILLED WITH SELECT GRANULAR MATERIAL.

* EXISTING UPSTREAM SEWER SHALL BE TELEVIEWED TO DETERMINE IF THE SEWERS ARE STILL ACTIVE. A NEW CONNECTION TO THE PROPOSED STORMTRAP SHALL BE MADE IF THE SEWER IS ACTIVE. IF THE SEWER IS NOT ACTIVE, THE SEWER SHALL BE PLUGGED AT THE DOWNSTREAM END PER NOTE NUMBER 11 ON THE RIGHT.

1/27/2016 10:16:14 AM W:\2016\Engineering\Projects\Utility\02-Demolition\02.dwg

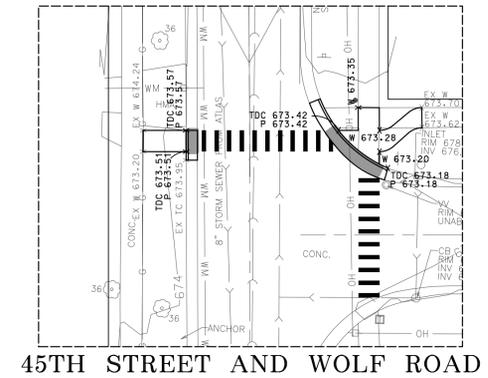
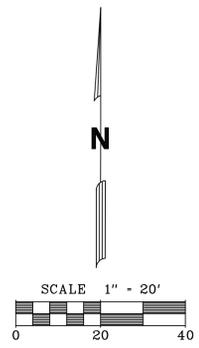
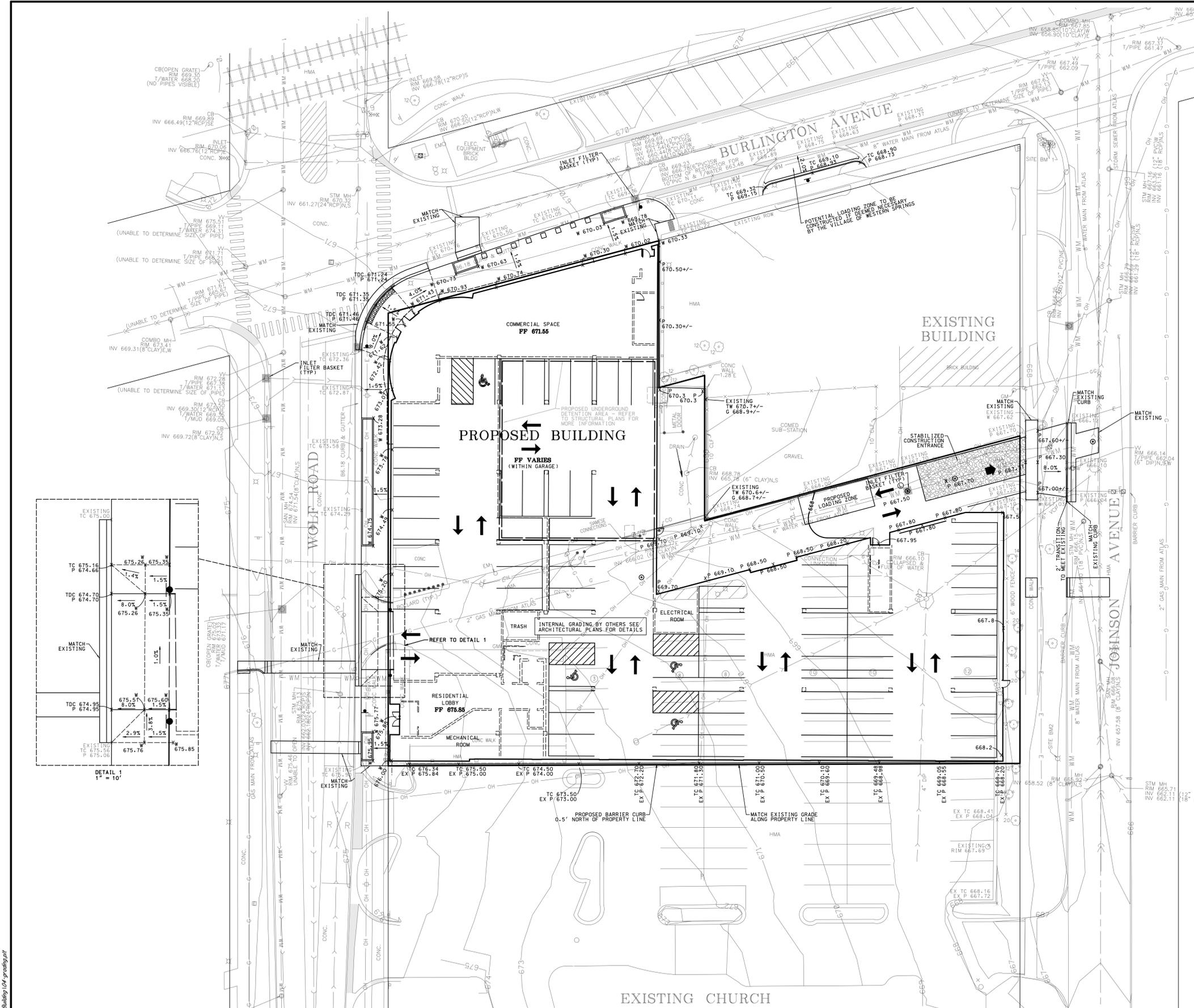
Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT: **FOXFORD STATION, LLC**
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY	SCALE
01-29-16	REVISED PER OWNER	TKB	
01-14-16	REVISED PER CLIENT COMMENTS	TKB	
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	DATE 07-25-14
10-24-14	REVISED PER VILLAGE COMMENTS	RDB	SCALE 1" = 20'

DEMOLITION PLAN
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
3 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



LEGEND

- INLET PROTECTION - FILTER BASKET
- STABILIZED CONSTRUCTION ENTRANCE

THE FOLLOWING ITEMS HAVE NOT BEEN SPECIFICALLY SHOWN BUT ARE REQUIRED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MUST BE INCORPORATED DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.

- TEMPORARY AND/OR PERMANENT STABILIZATION
- WASTE MANAGEMENT
- CONCRETE WASTE MANAGEMENT (CONCRETE WASH-OUT FACILITY)
- SEDIMENT TRAPS
- ALLOWABLE DEWATERING OPERATIONS.

DETAILS AND INFORMATION REGARDING THESE MEASURES HAVE BEEN PROVIDED ON SHEET 5.

THE OWNER AND CONTRACTORS SHALL ALSO REVIEW ALL CONSTRUCTION PRACTICES TO MINIMIZE THE POTENTIAL IMPACTS TO STORMWATER DISCHARGES FROM THE SITE. SPECIFIC CONSIDERATIONS ARE PROVIDED ON PAGE 5 FOR THE FOLLOWING ACTIVITIES:

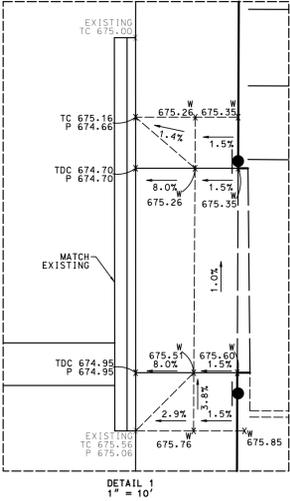
- CONCRETE CUTTING
- VEHICLE STORAGE AND MAINTENANCE
- MATERIAL STORAGE
- SANITARY STATIONS
- SPILL PREVENTION

GENERAL INFORMATION
 ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH PROCEDURES AND STANDARDS FOR URBAN SOIL AND EROSION AND SEDIMENTATION CONTROL IN ILLINOIS AND THE "ILLINOIS URBAN MANUAL."

SWPPP AVAILABILITY
 THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT
 THE OWNER SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ON-SITE AS PART OF THE SWPPP.

- GRADING PLAN GENERAL NOTES**
- EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS ON DECEMBER 13, 2012, JUNE 19, 2014, AND DECEMBER 31, 2014. CONTRACTOR SHALL FIELD CHECK EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
 - ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDS.
 - ALL CURB ELEVATIONS ARE TO BE TOP OF CURB. ALL GUTTER ELEVATIONS ARE 0.5' BELOW TOP OF CURB ELEVATION UNLESS OTHERWISE NOTED.
 - GRADING INDICATED MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO FINE GRADING.
 - CONTRACTOR SHALL MEET EXISTING GROUND ELEVATIONS AT PROPERTY LINE, UNLESS OTHERWISE NOTED AND THE APPROPRIATE EASEMENTS OR PERMISSION HAS BEEN OBTAINED.



Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT: **FOXFORD STATION, LLC**
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY
01-29-16	REVISED PER OWNER	TKB
01-14-16	REVISED PER CLIENT COMMENTS	TKB
12-07-15	REVISED BUILDING CONFIGURATION	TKB
01-06-15	REVISED PER VILLAGE COMMENTS	RDB
10-24-14	REVISED PER VILLAGE COMMENTS	RDB
DATE	DESCRIPTION OF REVISION	BY

GRADING AND STORMWATER POLLUTION PREVENTION PLAN
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
4 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694

GENERAL INFORMATION

- SITE DESCRIPTION**
- A. THIS PLAN COVERS THE CONSTRUCTION OF UNDERGROUND UTILITY AND PAVING IMPROVEMENTS FOR A PROPOSED COMMERCIAL AND RESIDENTIAL BUILDING.
- B. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF CONSTRUCTION ACTIVITIES:
1. INSTALL PERIMETER SOIL EROSION AND SEDIMENT CONTROL MEASURES:
 - STABILIZED CONSTRUCTION ENTRANCE
 - INLET PROTECTION IN ALL OFFSITE STRUCTURES WITH OPEN GRATES
 2. DEMOLITION OF EXISTING STRUCTURES
 3. CONSTRUCT DETENTION FACILITIES AND OUTLET CONTROL STRUCTURE.
 4. BEGIN BUILDING CONSTRUCTION.
 5. INSTALL STORM SEWER, SANITARY SEWER, WATER MAIN.
 6. INSTALL INLET PROTECTION WITHIN ALL STORM STRUCTURES WITH "OPEN" GRATES.
 7. TEMPORARILY STABILIZE ALL AREAS INCLUDING AREAS THAT HAVE REACHED TEMPORARY GRADE WITHIN 7 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA.
 8. INSTALL ROADWAYS.
 9. PERMANENTLY STABILIZE GRASSY AREAS.
 10. REMOVE ALL TEMPORARY CONTROL MEASURE AFTER SITE IS STABILIZED AND RE-SEED AREAS DISTURBED BY THEIR REMOVAL.
- C. THE SITE HAS A TOTAL ACREAGE OF APPROXIMATELY 0.95 ACRES. CONSTRUCTION ACTIVITY WILL DISTURB APPROXIMATELY 0.95 ACRES OF THE SITE.
- D. THE RUNOFF COEFFICIENT FOR THE SITE FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES IS: COMPOSITE "c" = 0.95.
- E. PLEASE REFER TO PAGE 3 FOR A MAP INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFFSITE SEDIMENT TRACKING, AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS), AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO A SURFACE WATER.
- F. THE STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT DRAINS TO AN EXISTING STORM SEWER.
- G. POTENTIAL SOURCES OF POLLUTION ASSOCIATED WITH THIS CONSTRUCTION ACTIVITY MAY INCLUDE:
- SEDIMENT FROM DISTURBED SOILS
 - FUEL TANKS
 - WASTE CONTAINERS
 - OIL OR OTHER PETROLEUM PRODUCTS
 - TAR
 - DETERGENTS
 - PAINTS
 - CONSTRUCTION DEBRIS
 - CONCRETE AND CONCRETE TRUCKS
 - SANITARY STATIONS
 - STAGING AREAS
 - CHEMICAL STORAGE AREAS
 - ADHESIVES
 - SOLVENTS
 - FERTILIZERS
 - RAW MATERIALS (I.E. BAGGED PORTLAND CEMENT)
 - LANDSCAPE WASTE
 - LITTER

ADDITIONAL MEASURES REQUIRED:

1. STABILIZATION: STABILIZATION PRACTICES MUST BE INITIATED WITHIN ONE (1) WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN ANY AREA. EXCEPTIONS TO THESE TIME FRAMES ARE SPECIFIED AS PROVIDED BELOW:
 - A. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
 - B. ON AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER 14 DAYS, A TEMPORARY STABILIZATION METHOD CAN BE USED.
 - C. THE FOLLOWING PRACTICES ARE ACCEPTABLE STABILIZATION MEASURES:
 - PERMANENT SEEDING: IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
 - TEMPORARY SEEDING: MAY CONSIST OF SPRING OATS (100 LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150 LBS/ACRE).
 - MULCHING
 - GEOTEXTILES
 - SODDING
 - VEGETATIVE BUFFER STRIPS

THE APPROPRIATE STABILIZATION MEASURE SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME THE CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE.

2. WASTE MANAGEMENT

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. ALL WASTE MATERIALS SHOULD BE COLLECTED AND STORED IN APPROVED RECEPTACLES. NO WASTES SHOULD BE PLACED IN ANY LOCATION OTHER THAN IN THE APPROVED CONTAINERS APPROPRIATE FOR THE MATERIALS BEING DISCARDED. THERE SHOULD BE NO LIQUID WASTES DEPOSITED INTO DUMPSTERS OR OTHER CONTAINERS WHICH MAY LEAK. RECEPTACLES WITH DEFICIENCIES SHOULD BE REPLACED AS SOON AS POSSIBLE AND THE APPROPRIATE CLEAN-UP PROCEDURE SHOULD TAKE PLACE, IF NECESSARY. CONSTRUCTION WASTE MATERIAL IS NOT TO BE BURIED ONSITE. WASTE DISPOSAL SHOULD COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS

ONSITE HAZARDOUS MATERIAL STORAGE SHOULD BE MINIMIZED AND STORED IN LABELED, SEPARATE RECEPTACLES FROM NON-HAZARDOUS WASTE. ALL HAZARDOUS WASTE SHOULD BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER.

3. CONCRETE WASTE MANAGEMENT

CONCRETE WASTE OR WASHOUT SHOULD NOT BE ALLOWED IN THE STREET OR ALLOWED TO REACH A STORM WATER DRAINAGE SYSTEM OR WATERCOURSE. A SIGN SHOULD BE POSTED AT EACH LOCATION TO IDENTIFY THE WASHOUT. TO THE EXTENT PRACTICABLE, CONCRETE WASHOUT AREAS SHOULD BE LOCATED A REASONABLE DISTANCE FROM A STORM WATER DRAINAGE INLET OR WATERCOURSE. CONCRETE WASHOUT AREAS SHOULD BE LOCATED AT LEAST 10 FEET BEHIND THE CURB, IF THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD. A STABILIZED ENTRANCE THAT MEETS ILLINOIS URBAN MANUAL STANDARDS SHOULD BE INSTALLED AT EACH WASHOUT AREA.

THE CONTAINMENT FACILITIES SHOULD BE OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND CONCRETE WASTE MATERIALS INCLUDING ENOUGH CAPACITY FOR ANTICIPATED LEVELS OF RAINWATER. THE DRIED CONCRETE WASTE MATERIAL SHOULD BE PICKED UP AND DISPOSED OF PROPERLY WHEN 75% CAPACITY IS REACHED. HARDENED CONCRETE CAN BE PROPERLY RECYCLED AS APPROVED BY THE MUNICIPALITY AND USED AGAIN ONSITE OR HAULED OFFSITE TO AN APPROPRIATE LANDFILL.

4. DEWATERING OPERATIONS

DURING DEWATERING/PUMPING OPERATIONS, ONLY UNCONTAMINATED WATER SHOULD BE ALLOWED TO DISCHARGE TO PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR TO A STORM SEWER SYSTEM (IN ACCORDANCE WITH LOCAL PERMITS). INLET HOSES SHOULD BE PLACED IN A STABILIZED SUMP PIT OR FLOATED AT THE SURFACE OF THE WATER IN ORDER TO LIMIT THE AMOUNT OF SEDIMENT INTAKE. PUMPING OPERATIONS SHOULD BE DISCHARGED TO A STABILIZED AREA THAT CONSISTS OF AN ENERGY DISSIPATING DEVICE (I.E. STONE, SEDIMENT FILTER BAG, OR BOTH). WHEN NECESSARY, STABILIZED CONVEYANCE CHANNELS SHOULD BE INSTALLED TO DIRECT WATER TO THE DESIRED LOCATION. ADDITIONAL BMPs MAY BE REQUIRED AT THE OUTLET AREA AS REQUESTED BY THE MUNICIPALITY, OR OTHER REVIEWING AGENCY.

5. DUST CONTROL

A WATER TRUCK MAY BE NECESSARY ONSITE TO LIMIT THE AMOUNT OF DUST LEAVING THE SITE. THE FOLLOWING LIST OF CONTROL MEASURES MAY BE IMPLEMENTED ONSITE TO LIMIT THE GENERATION OF DUST AS NEEDED:

- SPRINKLING/IRRIGATION
- MULCH
- TILLAGE
- VEGETATIVE COVER
- SPRAY-ON SOIL TREATMENTS
- STONE

6. OFF-SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCE(S) SHOULD BE INSTALLED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ADJACENT ROADWAYS SHOULD BE SWEEP AS NEEDED, TO REDUCE EXCESS SEDIMENT, DIRT, OR STONE TRACKED FROM THE SITE. ACCUMULATED SEDIMENT AND STONE SHOULD BE REMOVED FROM THE STABILIZED ENTRANCE AS NEEDED. VEHICLES HAULING ERODIBLE MATERIAL TO AND FROM THE CONSTRUCTION SITE SHOULD BE COVERED WITH A TARP.

7. CONCRETE CUTTING

CONCRETE WASTE MANAGEMENT SHOULD BE IMPLEMENTED TO CONTAIN AND DISPOSE OF SAW-CUTTING SLURRIES. CONCRETE CUTTING SHOULD NOT TAKE PLACE DURING OR IMMEDIATELY AFTER A RAINFALL EVENT. WASTE GENERATED FROM CONCRETE CUTTING SHOULD BE CLEANED-UP AND DISPOSED INTO THE CONCRETE WASHOUT FACILITY AS DESCRIBED ABOVE.

8. VEHICLE STORAGE AND MAINTENANCE

WHEN NOT IN USE, VEHICLES UTILIZED IN THE DEVELOPMENT OPERATIONS OF THE SITE SHOULD BE STORED IN A DESIGNATED UPLAND AREA AWAY FROM ANY NATURAL OR CREATED WATERCOURSE, POND, DRAINAGE-WAY OR STORM DRAIN. WHENEVER POSSIBLE VEHICLE MAINTENANCE, FUELING, AND WASHING SHOULD OCCUR OFFSITE. IF ALLOWED ON-SITE; VEHICLE MAINTENANCE (INCLUDING BOTH ROUTINE MAINTENANCE AS WELL AS ON-SITE REPAIRS) SHOULD BE MADE WITHIN THE DESIGNATED AREA TO PREVENT THE MIGRATION OF MECHANICAL FLUIDS (OIL, ANTIFREEZE, ETC.) INTO WATERCOURSES, WETLANDS OR STORM DRAINS. DRIP PANS OR ABSORBENT PADS SHOULD BE USED FOR ALL VEHICLE AND EQUIPMENT MAINTENANCE ACTIVITIES THAT INVOLVE GREASE, OIL, SOLVENTS, OR OTHER VEHICLE FLUIDS. CONSTRUCTION VEHICLES SHOULD BE INSPECTED FREQUENTLY TO IDENTIFY ANY LEAKS; LEAKS SHOULD BE REPAIRED IMMEDIATELY OR THE VEHICLE SHOULD BE REMOVED FROM SITE. DISPOSE OF ALL USED OIL, ANTIFREEZE, SOLVENTS AND OTHER AUTOMOTIVE-RELATED CHEMICALS ACCORDING TO MANUFACTURER OR MSDS INSTRUCTIONS. CONTRACTORS SHOULD IMMEDIATELY REPORT SPILLS TO THE OWNER FOR PROPER REMEDIATION.

WASH WATERS, FROM EQUIPMENT OR VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS, MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

9. MATERIAL STORAGE

MATERIALS AND OR CONTAMINANTS SHOULD BE STORED IN A MANNER THAT MINIMIZES THE POTENTIAL TO DISCHARGE INTO STORM DRAINS OR WATERCOURSES. AN ONSITE AREA SHOULD BE DESIGNATED FOR MATERIAL DELIVERY AND STORAGE. ALL MATERIALS KEPT ONSITE SHOULD BE STORED IN THEIR ORIGINAL CONTAINERS WITH LEGIBLE LABELS, AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE. LABELS SHOULD BE REPLACED IF DAMAGED OR DIFFICULT TO READ. BERMED-OFF STORAGE AREAS ARE AN ACCEPTABLE CONTROL MEASURE TO PREVENT CONTAMINATION OF STORM WATER. MSDS SHEETS SHOULD BE AVAILABLE FOR REFERENCING CLEAN UP PROCEDURES. ANY RELEASE OF CHEMICALS OR CONTAMINANTS SHOULD BE IMMEDIATELY CLEANED UP AND DISPOSED OF PROPERLY. CONTRACTORS SHOULD IMMEDIATELY REPORT ALL SPILLS TO THE OWNER, WHO SHOULD NOTIFY THE APPROPRIATE AGENCIES, IF NEEDED.

TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS ONSITE, HAZARDOUS PRODUCTS SHOULD BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE. THE ORIGINAL LABELS AND MSDS DATA SHOULD BE RETAINED ONSITE AT ALL TIMES. HAZARDOUS MATERIALS AND ALL OTHER MATERIAL ONSITE SHOULD BE STORED IN ACCORDANCE WITH MANUFACTURER OR MSDS SPECIFICATIONS. WHEN DISPOSING OF HAZARDOUS MATERIALS, FOLLOW MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS.

10. SANITARY STATIONS

TO THE EXTENT PRACTICABLE, PORT-A-POTTIES SHOULD BE LOCATED AT A MINIMUM 8 FEET BEHIND THE CURB AND GUTTER OF THE INTERNAL ROADS AND BE LOCATED IN AN AREA THAT DOES NOT DRAIN TO ANY PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR STORM WATER STRUCTURES AND SHOULD BE ANCHORED TO THE GROUND TO PREVENT FROM TIPPING OVER. PORT-A-POTTIES LOCATED ON IMPERVIOUS SURFACES SHOULD BE PLACED ON TOP OF A SECONDARY CONTAINMENT DEVICE, OR BE SURROUNDED BY A CONTROL DEVICE (I.E. GRAVEL-BAG BERM).

11. SPILL PREVENTION

DISCHARGES OF A HAZARDOUS SUBSTANCE OR OIL CAUSED BY A SPILL (E.G., A SPILL OF OIL INTO A SEPARATE STORM SEWER OR WATERS OF THE STATE) ARE NOT AUTHORIZED BY THIS PERMIT. IF A SPILL OCCURS, NOTIFY THE OWNER IMMEDIATELY. THE CONSTRUCTION SITE SHOULD HAVE THE CAPACITY TO CONTROL, CONTAIN, AND REMOVE SPILLS IF THEY OCCUR. SPILLS SHOULD BE CLEANED IMMEDIATELY AFTER DISCOVERY IN ACCORDANCE WITH MSDS AND NOT BURIED ON SITE OR WASHED INTO STORM DRAINS OR WATERS OF THE STATE.

SPILLS IN EXCESS OF FEDERAL REPORTABLE QUANTITIES (AS ESTABLISHED UNDER 40 CFR PARTS 110 & 117, OR 302), SHOULD BE REPORTED TO THE NATIONAL RESPONSE CENTER BY CALLING (800) 424-9802. MSDS OFTEN INCLUDE INFORMATION ON FEDERAL REPORTABLE QUANTITIES FOR MATERIALS. SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHOULD BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE. WHEN CLEANING UP A SPILL, THE AREA SHOULD BE KEPT WELL VENTILATED AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT SHOULD BE USED TO MINIMIZE INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

IN ADDITION TO PROPER WASTE MANAGEMENT, CONCRETE WASTE MANAGEMENT, CONCRETE CUTTING, VEHICLE STORAGE AND MAINTENANCE, MATERIAL STORAGE, AND SANITARY STATION PROTECTION, THE FOLLOWING MINIMUM PRACTICES SHOULD BE FOLLOWED TO REDUCE THE RISK OF SPILLS:

- ON-SITE VEHICLES SHOULD BE MONITORED FOR LEAKS AND SHOULD RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.
- PETROLEUM PRODUCTS SHOULD BE STORED IN TIGHTLY SEALED AND CLEARLY LABELED CONTAINERS.
- ALL PAINT CONTAINERS SHOULD BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHOULD BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS, AND SHOULD NOT BE DISCHARGED TO THE STORM SEWER.
- CONTRACTORS SHOULD FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL OF MATERIALS.

MAINTENANCE

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT SHOULD BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATION CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN AND STANDARD SPECIFICATIONS.

STABILIZED CONSTRUCTION ENTRANCE: THE ENTRANCES SHOULD BE MAINTAINED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC STREETS. MAINTENANCE INCLUDES TOP DRESSING WITH ADDITIONAL STONE AND REMOVING TOP LAYERS OF STONES AND SEDIMENT. THE SEDIMENT RUN-OFF ONTO THE PUBLIC RIGHT OF WAY SHOULD BE REMOVED IMMEDIATELY.

CONCRETE WASHOUT AREA: EXISTING FACILITIES SHOULD BE CLEANED OUT, OR NEW FACILITIES SHOULD BE CONSTRUCTED AND OPERATIONAL ONCE THE EXISTING WASHOUT IS 75% FULL. WASHOUTS SHOULD BE INSPECTED FREQUENTLY TO ENSURE THAT PLASTIC LININGS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACTIVITIES. WHEN THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD, THE PAVED ROAD SHOULD BE INSPECTED FOR ACCUMULATED CONCRETE WASTE. ANY ACCUMULATED CONCRETE WASTE ON THE ROAD, CURB, OR GUTTER SHOULD BE REMOVED AND PROPERLY DISPOSED.

CATCH BASIN AND INLET FILTERS: INLET FILTERS SHOULD BE INSPECTED FOR PROPER FILTERING. IF FILTER BAGS ARE USED, REMOVE SEDIMENT FROM THE FILTER BAGS WHEN 50% PERCENT OF THE STORAGE VOLUME HAS BEEN FILLED, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. REMOVE TRASH AND DEBRIS DURING INSPECTIONS. ACCUMULATED MATERIAL IN THE FILTERS SHOULD BE DISPOSED PROPERLY. DO NOT PUNCTURE HOLES IN FILTERS IF PONDING OCCURS.

NON-STORM WATER DISCHARGES

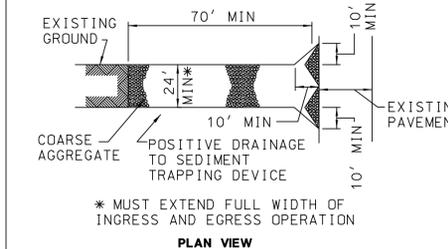
NON-STORM WATER FLOWS THAT MAY BE COMBINED WITH STORM WATER DISCHARGES ARE INCLUDED WITHIN THIS PLAN. THESE DISCHARGES INCLUDE: DISCHARGES FROM FIRE FIGHTING ACTIVITIES; FIRE HYDRANT FLUSHINGS; WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED; WATERS USED TO CONTROL DUST; POTABLE WATER SOURCES INCLUDING UNCONTAMINATED WATERLINE FLUSHINGS; LANDSCAPE IRRIGATION DRAINAGES; ROUTINE EXTERNAL BUILDING WASHDOWN WHICH DOES NOT USE DETERGENTS; PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED; UNCONTAMINATED AIR CONDITIONING CONDENSATE; SPRINGS; UNCONTAMINATED GROUND WATER; AND FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR SOLVENTS.

THE FOLLOWING NON-STORM WATER DISCHARGES ARE PROHIBITED: CONCRETE AND WASTEWATER FROM WASHOUT OF CONCRETE (UNLESS MANAGED BY AN APPROPRIATE CONTROL), DRYWELL COMPOUND, WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS, FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE, SOAPS, SOLVENTS, OR DETERGENTS, TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE, OR ANY OTHER POLLUTANT THAT COULD CAUSE OR TEND TO CAUSE WATER POLLUTION.

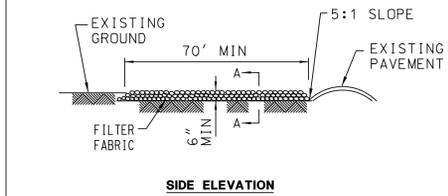
DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING TRENCHES AND EXCAVATIONS ARE ALLOWABLE IF MANAGED BY APPROPRIATE CONTROLS.

GENERAL NOTES

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. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
12. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
13. 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 SEWER OR COMBINED SEWER.



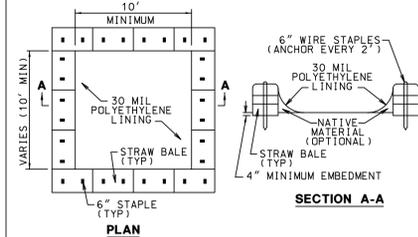
PLAN VIEW



SIDE ELEVATION

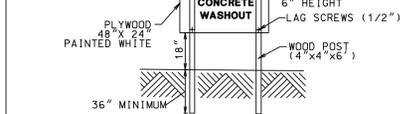
STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



PLAN

SECTION A-A

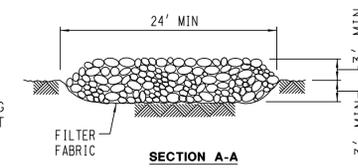


SIGN DETAIL (OR EQUIVALENT)

- NOTES:
1. ACTUAL LAYOUT AND LOCATION TO BE DETERMINED IN FIELD.
 2. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE: REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING FACILITY TO A FUNCTIONAL CONDITION.
 3. FACILITY SHALL BE CLEANED OR RE-CONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
 4. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"x2"x4" WOODEN STAKE.

CONCRETE WASHOUT FACILITY

NOT TO SCALE

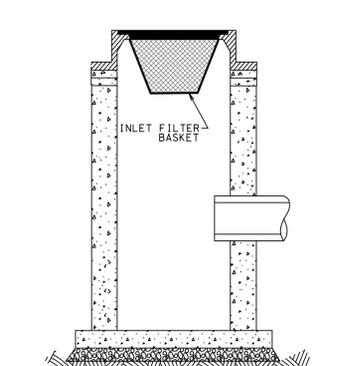


SECTION A-A

- NOTES:
1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF AASHTO M-288-00 AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACING OF ROCK.
 2. ROCK OR RECLAIMED CONCRETE SHALL BE IDOT COARSE AGGREGATE GRADATION CA-1, CA-2, CA-3 OR CA-4.
 3. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ONSET OF CONSTRUCTION OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE PROJECT DURATION.
 4. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 5. IF WASH RACKS ARE USED THEY SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

INLET PROTECTION - FILTER BASKET DETAIL

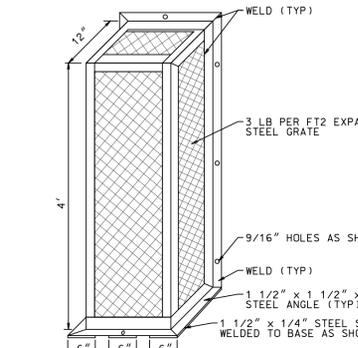
NOT TO SCALE



- NOTES:
1. AN INLET FILTER BASKET SHALL BE INSTALLED IN ALL OPEN FRAME STRUCTURES AND SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
 2. THE INLET BASKET SHALL BE CLEANED ON A WEEKLY BASIS AND AFTER ANY RAINFALL EVENT.
 3. INLET FILTER BASKETS SHALL BE "CATCH-ALL" BY MAR-MAC MANUFACTURING OR APPROVED EQUAL.

TRASH RACK DETAIL

NOT TO SCALE



- NOTES:
1. STEEL TO CONFORM TO ASTM A-36.
 2. ALL SURFACES OF TRASH RACK(S) MUST BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 3. TRASH RACK(S) TO BE FASTENED TO WALL WITH 1/2" MASONRY ANCHORS. TRASH RACK(S) TO BE REMOVABLE.
 4. TRASH RACK(S) TO BE CENTERED OVER OPENING.
 5. FABRICATOR MAY MODIFY DIMENSIONS AND COMPONENTS OF TRASH RACK FRAME TO IMPROVE CONSTRUCTION AND INSTALLATION OF TRASH RACK. SHOP DRAWINGS SHOWING MODIFICATIONS SHOULD BE APPROVED BY THE DESIGN ENGINEER PRIOR TO FABRICATION.

1/27/2016 1:36:32 PM D:\2016\Engineering\Info\Utility\GIS\mwp\wshackleson.dwg

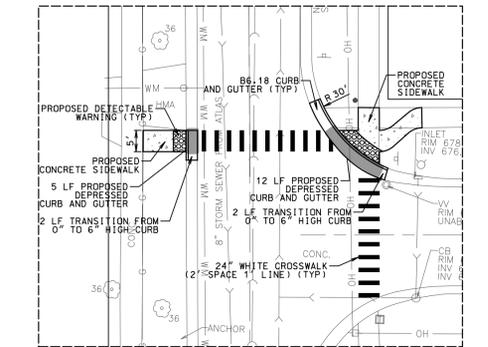
Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT: **FOXFORD STATION, LLC**
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

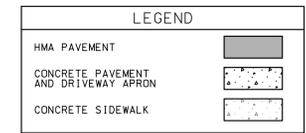
			DESIGNED	RDB
			DRAWN	WHM
			APPROVED	TKB
01-29-16	REVISED PER OWNER COMMENTS	TKB	DATE	07-25-14
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	SCALE	N.T.S.
10-24-14	REVISED TO INCLUDE MWRD RESTRICTOR DETAIL	TKB		
DATE	DESCRIPTION OF REVISION	BY		

**STORMWATER POLLUTION PREVENTION
 DETAILS AND SPECIFICATION
 FOXFORD STATION
 WESTERN SPRINGS, ILLINOIS**

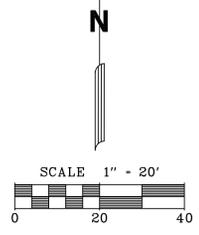
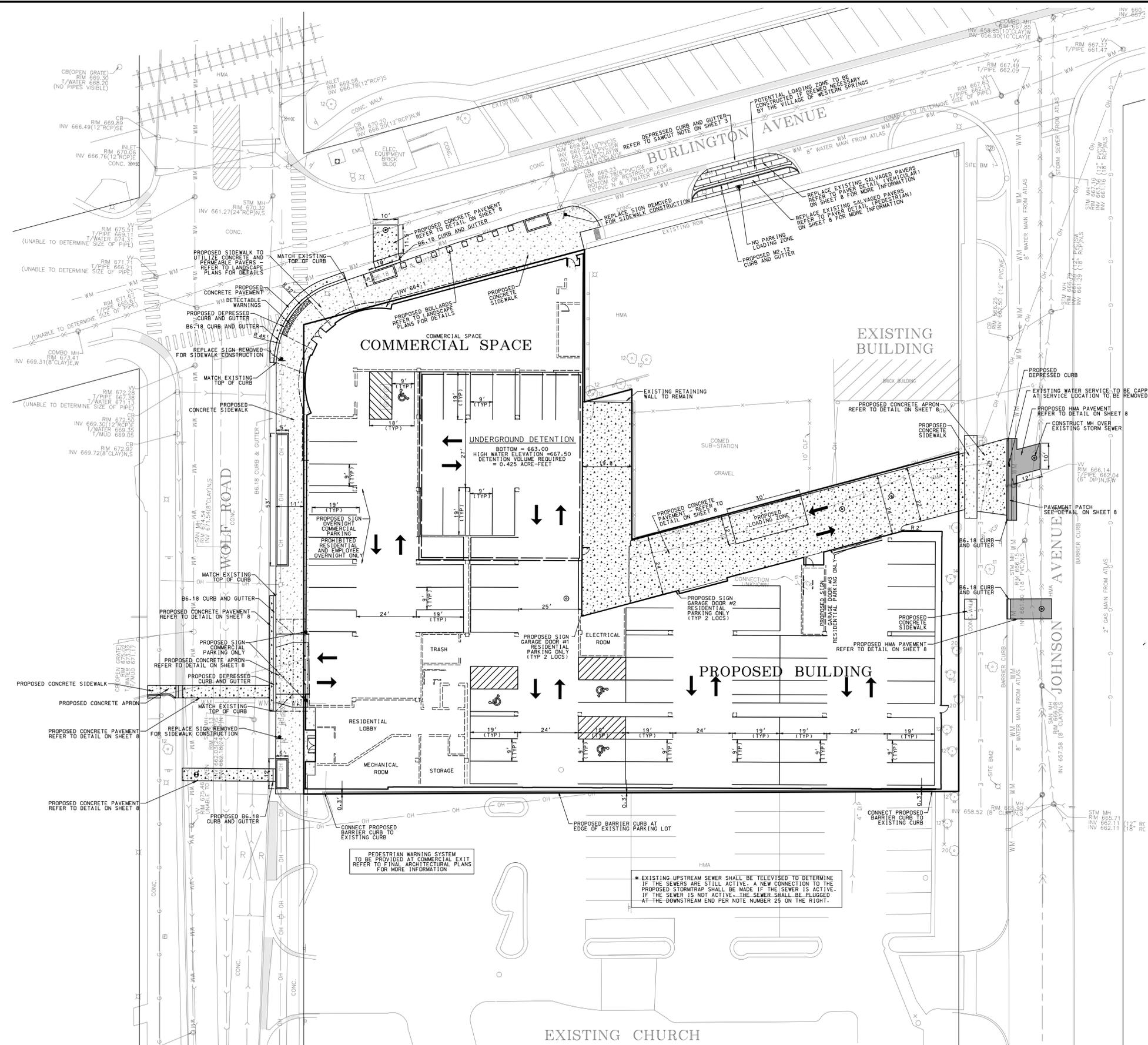
SHEET
5 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



45TH STREET AND WOLF ROAD



- GENERAL NOTES
1. ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF BUILDING, UNLESS OTHERWISE NOTED.
 2. ALL RADII ARE TO BACK OF CURB, UNLESS OTHERWISE NOTED.
 3. ALL BUILDING DIMENSIONS ARE BASED ON ARCHITECTURAL PLANS DATED 12-09-14. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND CONTACT THE ARCHITECT FOR ANY DISCREPANCIES.
 4. ALL ONSITE PAVEMENT MARKINGS SHALL BE PAINTED, UNLESS OTHERWISE NOTED.
 5. ALL PROPOSED CURB AND GUTTER SHALL BE B6.24 AND SHALL BE DEPRESSED CURB WHERE SIDEWALK MEETS A STREET, UNLESS OTHERWISE INDICATED. CURB DEPRESSIONS SHALL MEET ADA REQUIREMENTS AS NOTED IN THE CONSTRUCTION DETAILS.
 6. ALL JOINTS MADE WITH EXISTING PAVEMENT, CURB, WALK OR CURB AND GUTTER ARE TO BE SAWCUT FULL DEPTH WITHIN 24 HOURS OF PLACEMENT.



1/29/2016 10:07:10 AM M:\2016\Engineering\Photos\Layouts\6_paving.dwg

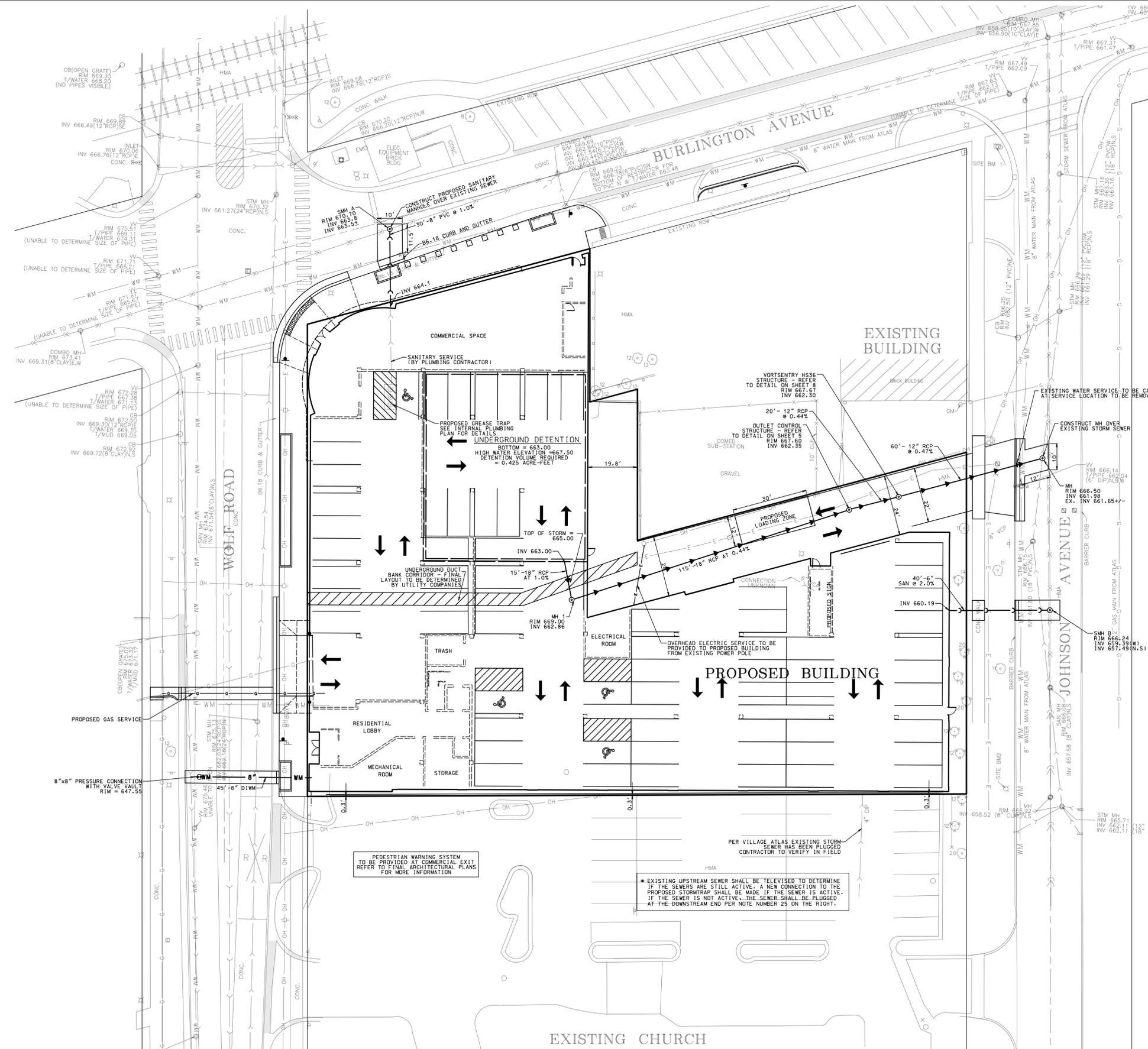
Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT: **FOXFORD STATION, LLC**
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY	SCALE
01-29-16	REVISED PER OWNER	TKB	DRAWN WHM
01-14-16	REVISED PER CLIENT COMMENTS	TKB	APPROVED TKB
12-07-15	REVISED BUILDING CONFIGURATION	TKB	DATE 07-25-14
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	SCALE 1" = 20'
10-24-14	REVISED PER VILLAGE COMMENTS	RDB	

PAVING PLAN
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
6 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



- GENERAL NOTES
1. ALL MANHOLES AND CATCH BASINS SHALL BE 48-INCH DIAMETER, UNLESS OTHERWISE INDICATED.
 2. ALL SANITARY SEWER, LESS THAN 15 FEET DEEP, SHALL BE PVC, SDR 26, UNLESS OTHERWISE INDICATED. PVC SANITARY SEWER SHALL HAVE ELASTOMERIC JOINTS IN CONFORMANCE WITH ASTM D-3212.
 3. ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 52, AWWA C-600 WITH "PUSH-ON" TYPE JOINTS, UNLESS OTHERWISE INDICATED. ALL WATER MAIN SHALL HAVE A MINIMUM OF 5'-6" OF COVER FROM TOP OF WATERMAIN TO FINISHED GRADE.
 4. ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE, MINIMUM CLASS III, WITH ASTM C76 PIPE AND C443 JOINTS, UNLESS OTHERWISE INDICATED.
 5. GRANULAR TRENCH BACKFILL CA 6 SHALL BE PROVIDED FOR ALL SANITARY, WATER AND STORM UTILITIES WHEN THE TRENCH LIMITS FALL WITHIN TWO FEET OF STREETS, SIDEWALKS, DRIVEWAYS AND AS NOTED ON THE SANITARY TRENCH DETAIL ON PAGE 7. ALL TRENCHES WITHIN COOK COUNTY RIGHT-OF-WAY MUST BE TRENCH BACKFILLED WITH FA-6 SAND IN ACCORDANCE WITH ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
 6. ALL WATERMAIN AND WATER SERVICE LINES SHALL BE PROTECTED FROM OTHER UTILITIES IN ACCORDANCE WITH SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS.
 7. ALL UNDERGROUND UTILITY INFORMATION NOTED ON THE PLANS IS BASED ON INFORMATION OBTAINED FROM THE MUNICIPALITY, UTILITY COMPANIES OR FIELD MEASUREMENTS. THIS INFORMATION, WHILE BELIEVED TO BE COMPLETE AND ACCURATE, CANNOT BE GUARANTEED.
 8. CONTRACTOR SHALL VERIFY ALL BUILDING SERVICE LOCATIONS AND SIZES WITH ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER OR OWNER OF ANY DISCREPANCIES.
 9. CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) PRIOR TO START OF CONSTRUCTION TO LOCATE ALL UTILITIES WITHIN THE RIGHT-OF-WAY.
 10. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES AT ALL PROPOSED CONNECTIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES.
 11. A TEN (10) FOOT MINIMUM SEPARATION SHALL BE PROVIDED BETWEEN THE WATERMAIN SERVICE AND THE SANITARY OR STORM SEWER SERVICES.
 12. IN CASE OF CONFLICTS, THE MORE STRINGENT STANDARDS AND NOTES SHALL TAKE PRECEDENCE.
 13. EXISTING PAVEMENT REMOVED FOR UTILITY CONSTRUCTION SHALL BE DONE BY THE RESPECTIVE UTILITY COMPANY AND PAID FOR SEPARATELY BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THIS WORK INCIDENTAL TO THE CONTRACT.
 14. EXISTING OR PROPOSED MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS REQUIRING OVER 12-INCHES OF ADJUSTING RINGS SHALL USE AN ADDITIONAL BARREL SECTION TO MAINTAIN A MAXIMUM OF 12-INCH TOTAL ADJUSTMENT RING DEPTH.
 15. ALL PIPES TO BE ABANDONED IN PLACE SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FEET NON-SHRINK CONCRETE MORTAR PLUGS. ANY STRUCTURES TO REMAIN SHALL HAVE THE BOTTOM BROKEN TO FACILITATE DRAINAGE AND FILLED WITH SAND OR PEA GRAVEL.
 16. ROOF DOWNSPOUTS SHALL BE CONNECTED TO THE STORMTRAP SYSTEM AND FLOOR DRAINS SHALL BE CONNECTED TO THE COMBINED SEWER.

1/29/2016 10:08:17 AM M:\2016\Engineering\Projects\Utility\Utility.dwg

Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

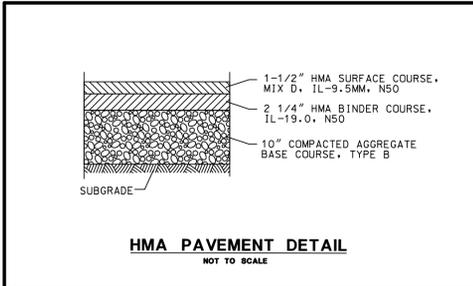
CLIENT: **FOXFORD STATION, LLC**
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	DESCRIPTION OF REVISION	BY
01-29-16	REVISED PER OWNER	TKB
01-14-16	REVISED PER CLIENT COMMENTS	TKB
12-07-15	REVISED BUILDING CONFIGURATION	TKB
01-06-15	REVISED PER VILLAGE COMMENTS	RDB
10-24-14	REVISED PER VILLAGE COMMENTS	RDB
	DESCRIPTION OF REVISION	BY

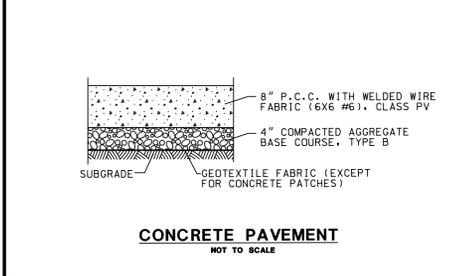
DESIGNED	RDB
DRAWN	WHM
APPROVED	TKB
DATE	07-25-14
SCALE	1" = 20'

**UTILITY PLAN
 FOXFORD STATION
 WESTERN SPRINGS, ILLINOIS**

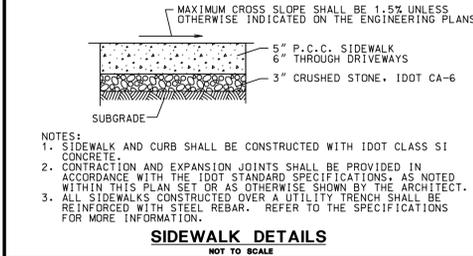
SHEET
7 OF 10
 PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694



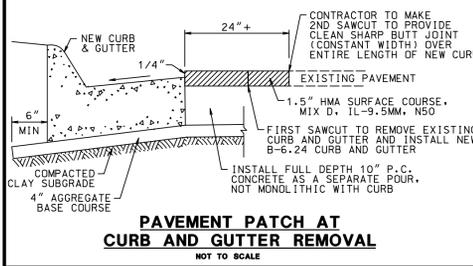
HMA PAVEMENT DETAIL
NOT TO SCALE



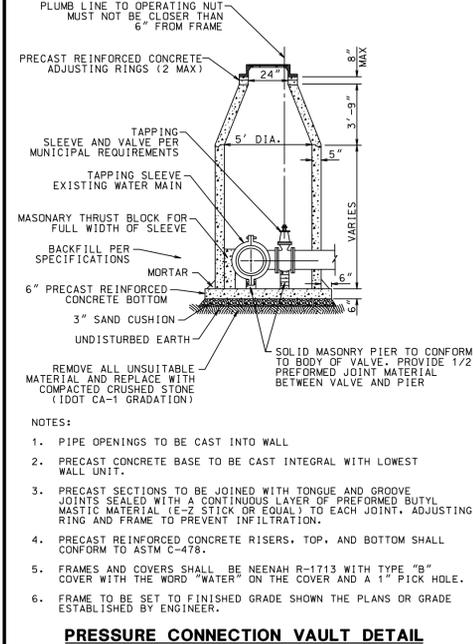
CONCRETE PAVEMENT
NOT TO SCALE



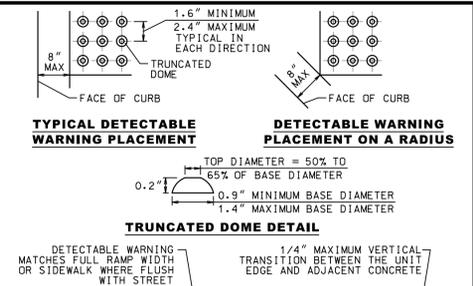
SIDEWALK DETAILS
NOT TO SCALE



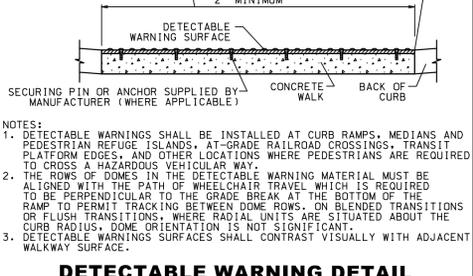
PAVEMENT PATCH AT CURB AND GUTTER REMOVAL
NOT TO SCALE



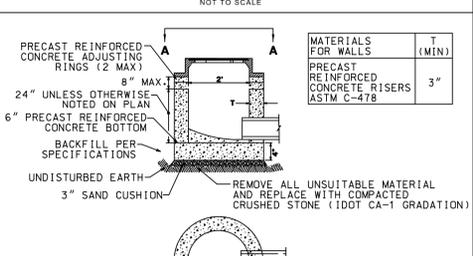
PRESSURE CONNECTION VAULT DETAIL
NOT TO SCALE



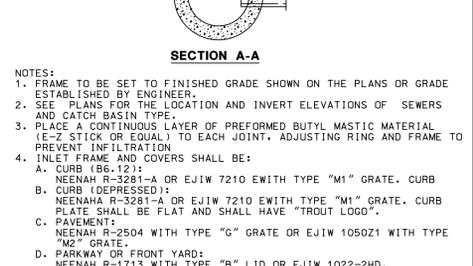
TYPICAL DETECTABLE WARNING PLACEMENT **DETECTABLE WARNING PLACEMENT ON A RADIUS**



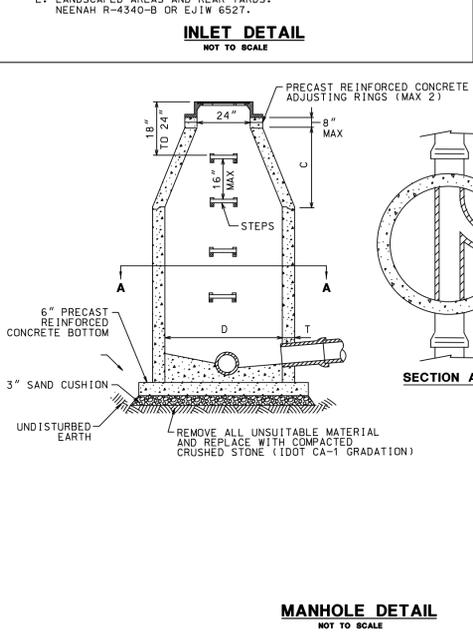
TRUNCATED DOME DETAIL
NOT TO SCALE



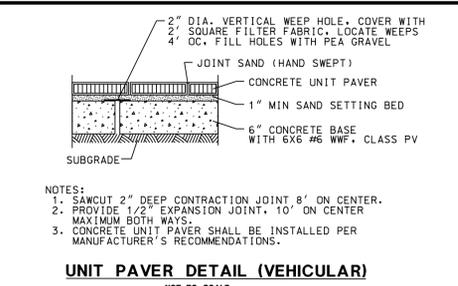
DETECTABLE WARNING DETAIL
NOT TO SCALE



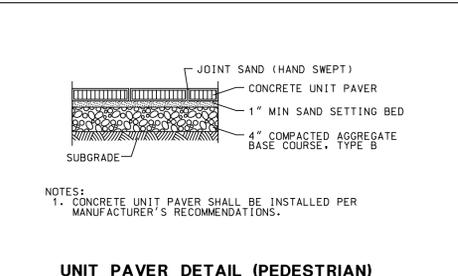
INLET DETAIL
NOT TO SCALE



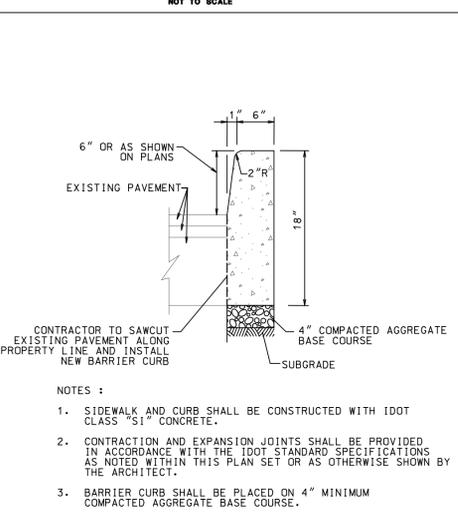
MANHOLE DETAIL
NOT TO SCALE



UNIT PAVER DETAIL (VEHICULAR)
NOT TO SCALE

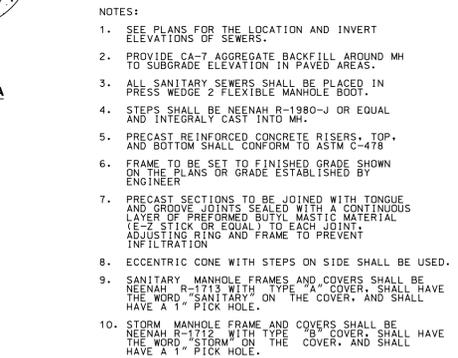


UNIT PAVER DETAIL (PEDESTRIAN)
NOT TO SCALE

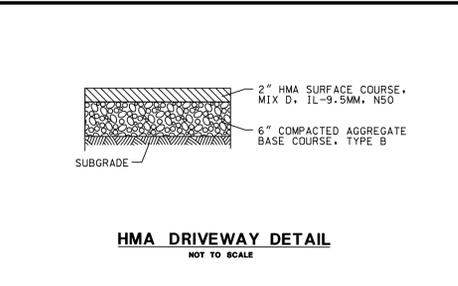


BARRIER CURB DETAILS
NOT TO SCALE

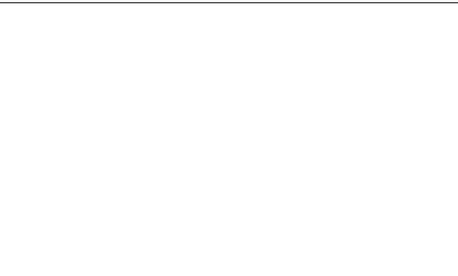
MATERIALS FOR WALLS	D	C	T
(MIN)			(MIN)
PRECAST REINFORCED CONCRETE RISERS	48"	30"	5"
ASTM C-478	60"	45"	5"
DIAMETER OF MAIN SEWER	D		
	18" AND UNDER		
	21" THRU 42"		



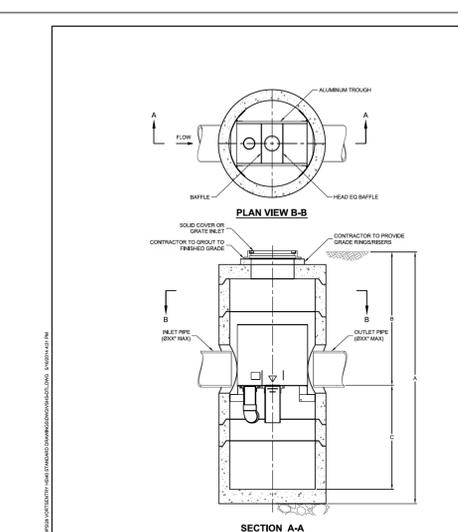
SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



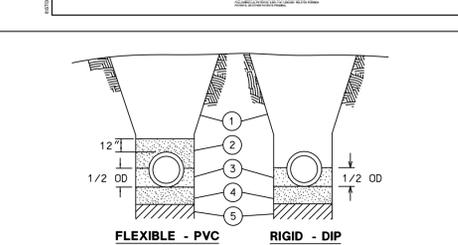
HMA DRIVEWAY DETAIL
NOT TO SCALE



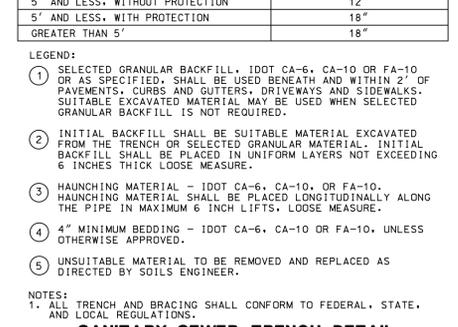
BARRIER CURB DETAILS
NOT TO SCALE



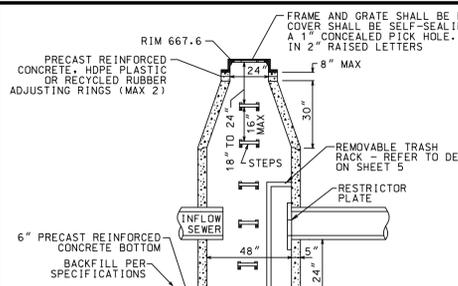
WATER MAIN TRENCH DETAIL
NOT TO SCALE



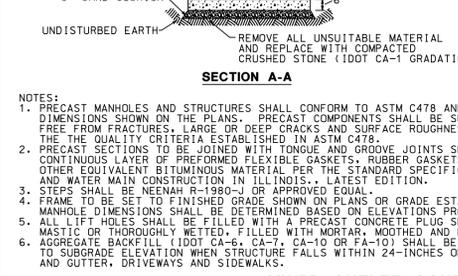
STORM SEWER TRENCH DETAIL
NOT TO SCALE



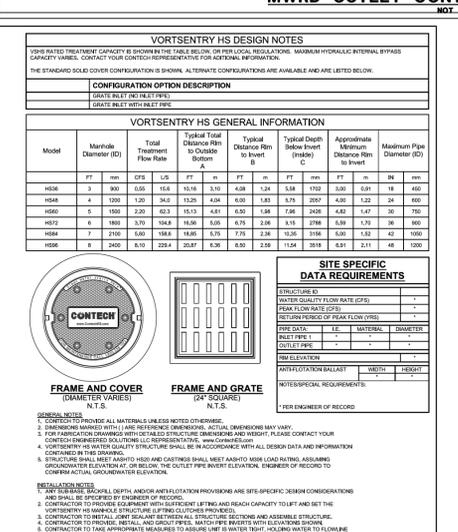
PRESSURE CONNECTION VAULT DETAIL
NOT TO SCALE



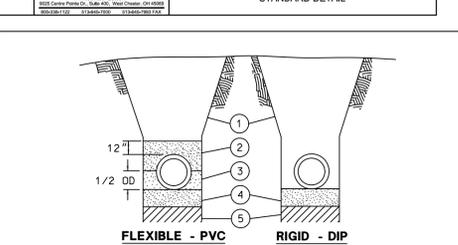
MWRD OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE



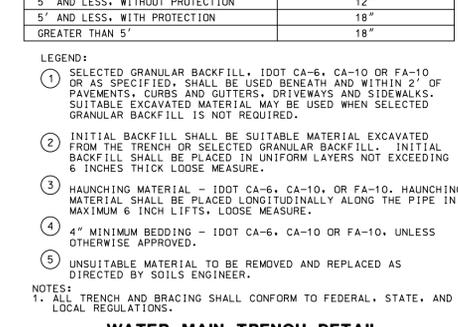
BARRIER CURB DETAILS
NOT TO SCALE



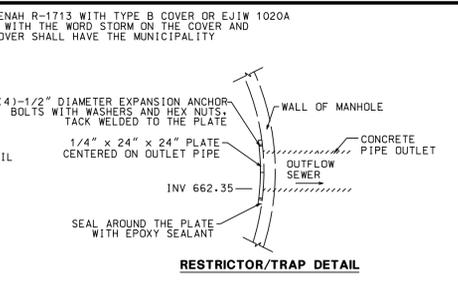
SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



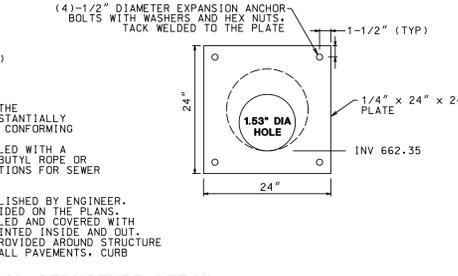
WATER MAIN TRENCH DETAIL
NOT TO SCALE



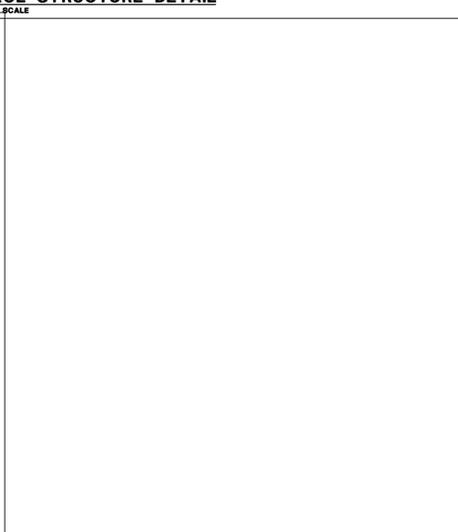
STORM SEWER TRENCH DETAIL
NOT TO SCALE



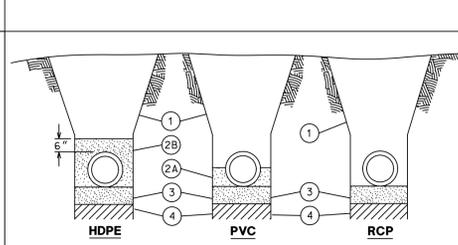
RESTRICTOR/TRAP DETAIL
NOT TO SCALE



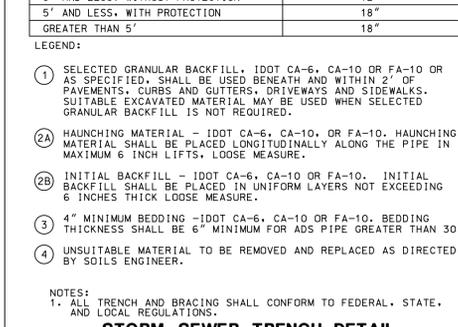
BARRIER CURB DETAILS
NOT TO SCALE



SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



WATER MAIN TRENCH DETAIL
NOT TO SCALE



STORM SEWER TRENCH DETAIL
NOT TO SCALE

1/23/2016 AM 11:22:22 Engineering Photos Library User: rchickwell

Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

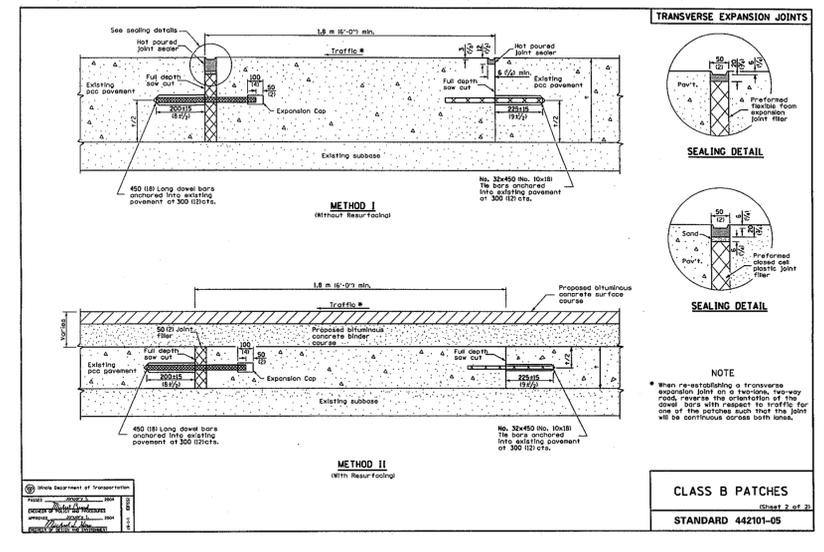
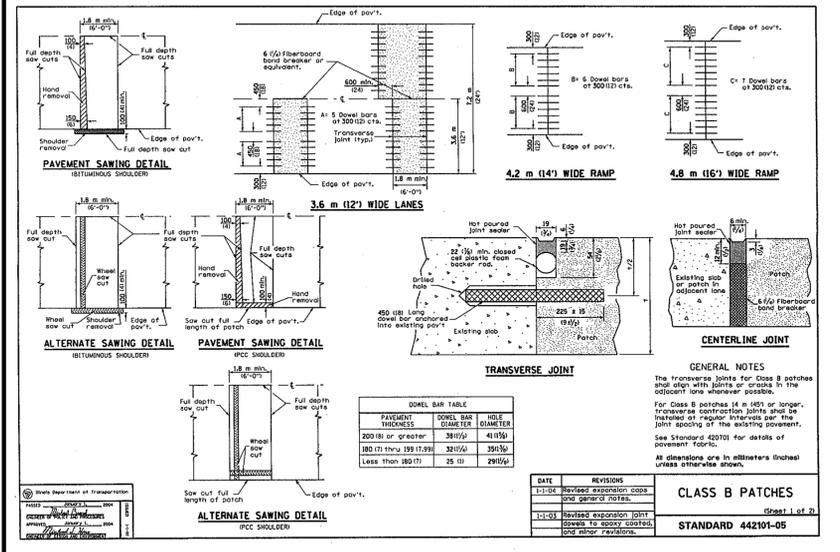
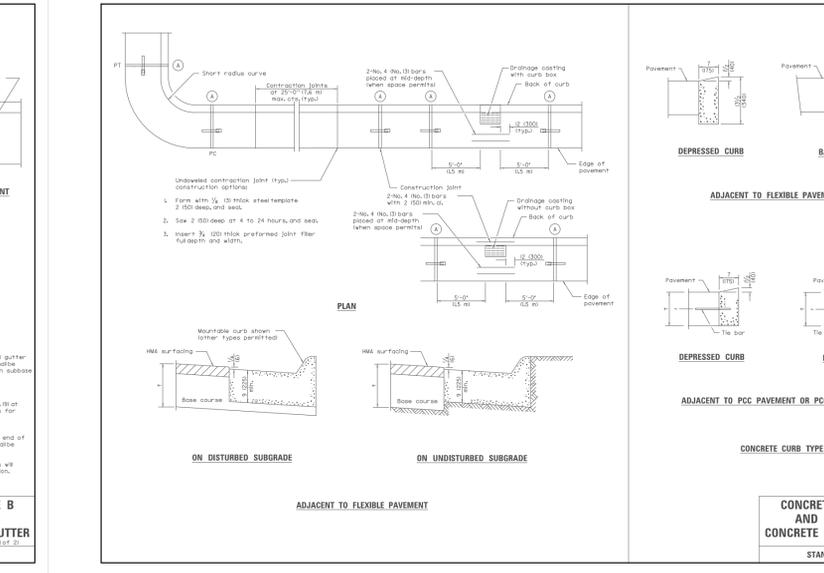
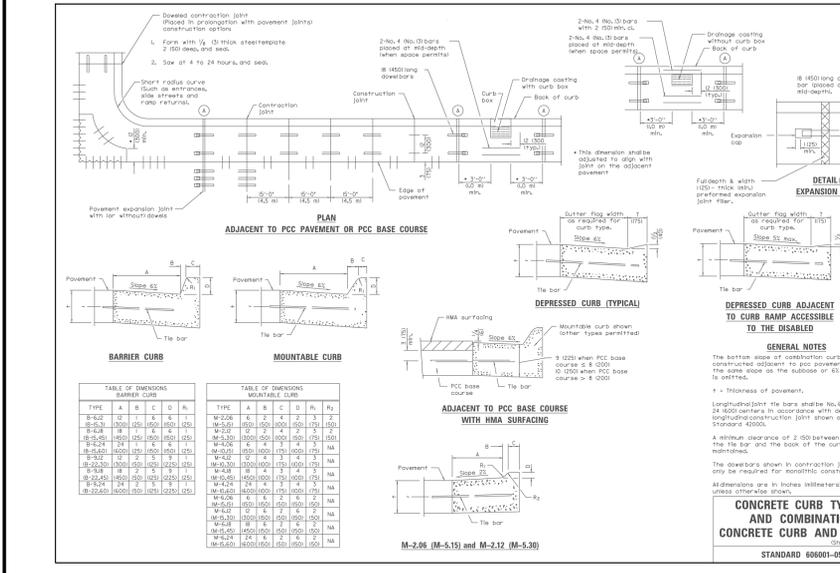
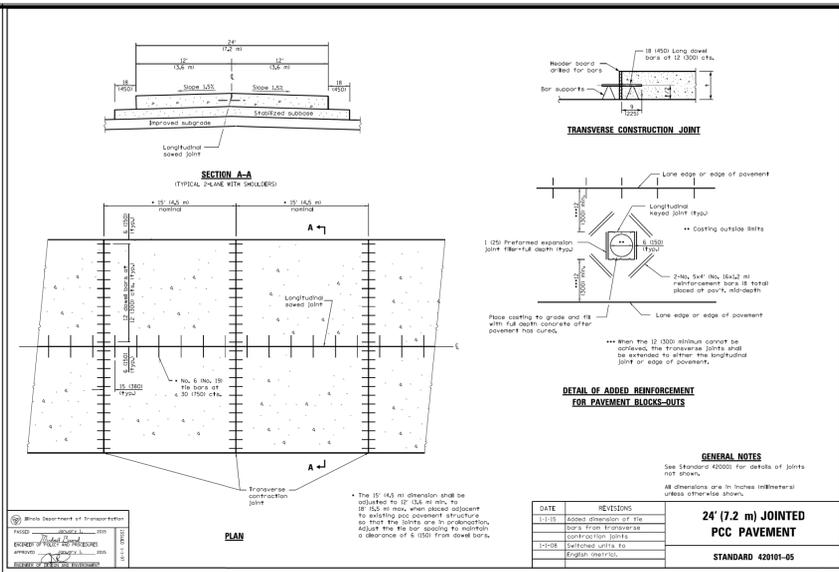
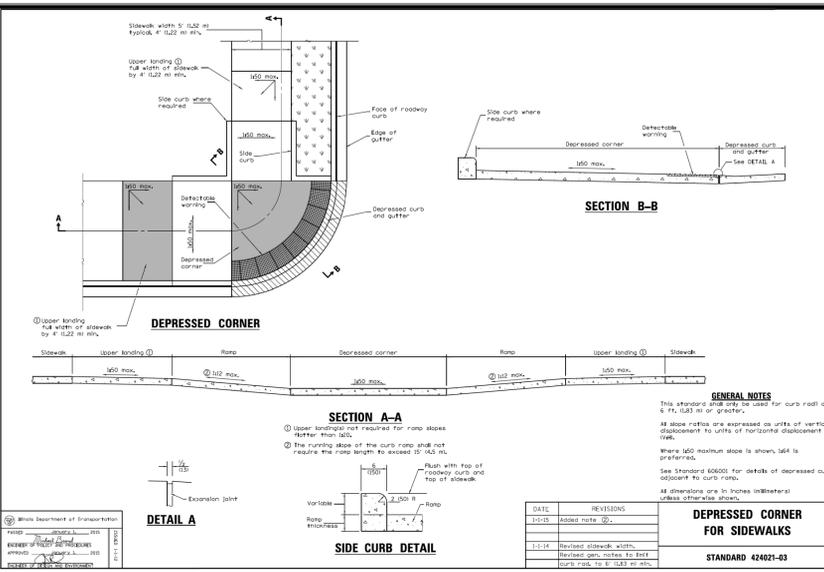
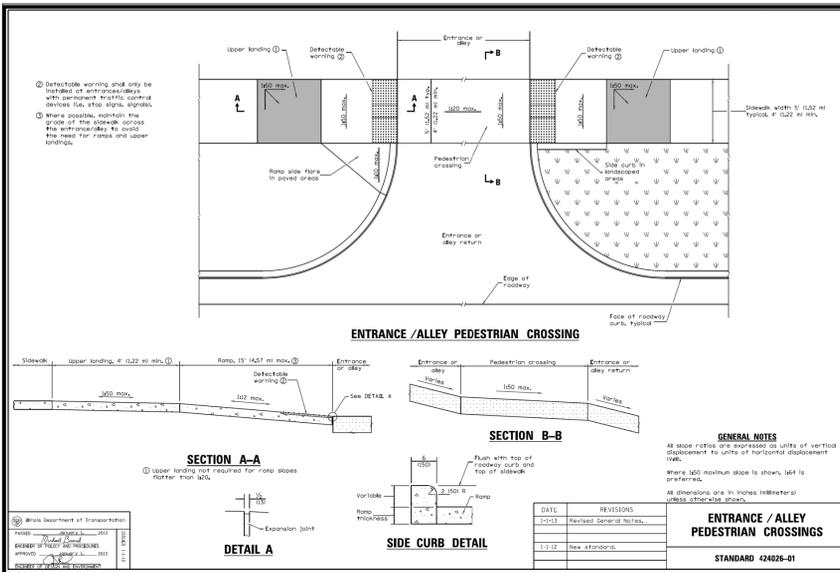
CLIENT: **FOXFORD STATION, LLC**
12 SALT CREEK LANE, SUITE 400
HINSDALE, ILLINOIS 60521
PH: 630-887-1705 FX: 630-887-1749

DESIGNED	RDB			
DRAWN	WHM			
APPROVED	TKB			
01-15-16	REVISED PER OWNER COMMENTS	TKB	DATE	07-25-14
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	SCALE	N.T.S.
DATE	DESCRIPTION OF REVISION	BY		

CONSTRUCTION DETAILS
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
8 OF 10

PROJECT NUMBER: 2222
© MACKIE CONSULTANTS LLC, 2016
ILLINOIS FIRM LICENSE 184-002694



Mackie Consultants, LLC
 9575 W. Higgins Road, Suite 500
 Rosemont, IL 60018
 (847)696-1400
 www.mackieconsult.com

CLIENT:
FOXFORD STATION, LLC
 12 SALT CREEK LANE, SUITE 400
 HINSDALE, ILLINOIS 60521
 PH: 630-887-1705 FX: 630-887-1749

DATE	REVISIONS	DESIGNED	BY
01-06-15	REVISED PER VILLAGE COMMENTS	RDB	
	DESCRIPTION OF REVISION	WHM	
		TKB	
		DATE	07-25-14
		SCALE	N.T.S.

CONSTRUCTION DETAILS
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
9 OF 10

PROJECT NUMBER: 2222
 © MACKIE CONSULTANTS LLC, 2016
 ILLINOIS FIRM LICENSE 184-002694

1/27/2016 3:05:17 PM M:\2222\Engineering\Photos\Building\109-revised.rvt

GENERAL NOTES

A. REFERENCED SPECIFICATIONS

- 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;
 - THE VILLAGE OF WESTERN SPRINGS CODE.
 - THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO CODE.
 - COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS.
- IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

- THE VILLAGE OF WESTERN SPRINGS, COOK COUNTY HIGHWAY DEPARTMENT AND THE OWNER MUST BE NOTIFIED AT LEAST 48 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.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF THE 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 MAY BE RESOLVED. CALL J.-U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

- THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
- THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY 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.
- 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 SEWER DISTRICT AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
- THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY UNPOLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
- 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 AND/OR SEWER DISTRICT.
- THE LOCATION OF VARIOUS EXISTING 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.
- 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.
- NO FINAL CONNECTION SHALL BE MADE TO THE EXISTING WATER MAIN SYSTEM UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED AND CHLORINATED.
- ALL NON-PAVING CONCRETE USED ON THE PROJECT SHALL BE IDOT CLASS S1.
- MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY AND OWNER.
- THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
- ALL EXISTING FIELD DRAINAGE TILE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION WHICH DRAIN OFFSITE PROPERTY SHALL BE CONNECTED TO THE STORM SEWER SYSTEM. ALL EXISTING FIELD DRAINAGE TILE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION THAT SERVES ON-SITE PROPERTY CAN BE CAPPED AND/OR REMOVED FROM THE SITE.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- 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.
- ALL TRENCHES WITHIN COOK COUNTY RIGHT-OF-WAY MUST BE BACKFILLED WITH FA-6 SAND IN ACCORDANCE WITH ARTICLE 550.07 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS, LATEST EDITION. COMPACTED GRANULAR TRENCH BACKFILL SHALL BE INSTALLED FOR ALL SEWER AND WATERMANS WHERE THE TOP OF THE TRENCH LIES UNDER OR WITHIN 24" OF ALL ROADWAYS, SIDEWALKS, DRIVES OR CURBS.

D. EXCAVATION AND SITE GRADING

- EXCAVATION AND EMBANKMENT REQUIRED FOR SITE GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SOILS REPORTS PREPARED FOR THIS SITE. COPIES OF THE SOILS REPORTS ARE AVAILABLE FROM THE OWNER.
- BUILDING PAD, BUILDING FOOTING, AND PAVEMENT SUBGRADES SHALL BE CONSTRUCTED OF SUITABLE FILL MATERIAL, AS DETERMINED BY THE SOILS ENGINEER, AND COMPACTED TO A MINIMUM BEARING CAPACITY OF 3,000 PSF IN BUILDING PAD AREAS AND 95% MODIFIED PROCTOR DENSITY IN PAVEMENT AREAS.
- COMPACTION TESTING SHALL MEET THE REQUIREMENTS OF THE MUNICIPALITY AND THE OWNER.
- NO EQUIPMENT, MATERIAL OR WORK IS TO BE PERFORMED OUTSIDE THE LIMITS OF CONSTRUCTION.
- THE CONTRACTOR IS REQUIRED TO MEET ALL SOIL EROSION CONTROL AND SEDIMENTATION REQUIREMENTS AS SET FORTH IN THE TEPA STANDARDS, MUNICIPAL ORDINANCES, COUNTY ORDINANCES, AND THE ENGINEERING PLANS.
- ALL PAVEMENT SUBGRADES SHALL BE PROOF-ROLLED WITH A FULLY LOADED TEN WHEEL TRUCK. ANY SOFT YIELDING AREAS SHALL BE REMOVED AND REPLACED WITH COMPACT CA-6 CRUSHED STONE.
- ALL UNSUITABLE MATERIAL, AS DETERMINED BY THE SOILS ENGINEER, SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE, IDOT CA-6 GRADATION AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY IN PAVEMENT AREAS AND COMPACTED TO 3,000 PSF IN BUILDING PAD LIMITS.
- LIMITS OF BUILDING PAD SHALL EXTEND FIVE (5) FEET BEYOND PROPOSED BUILDING WALLS. LIMITS OF SUITABLE PAVEMENT SUBGRADE SHALL EXTEND TWO (2) FEET BEYOND BACK OF PROPOSED CURB, OR EDGE OF PAVEMENT.
- ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE AND LOCAL TIPPING FEES.

E. PAVEMENT CONSTRUCTION

- HOT-MIX ASPHALT PAVEMENT SHALL HAVE A MINIMUM TOTAL COMPACTED THICKNESS AS SHOWN ON THE DRAWINGS AND SHALL BE COMPACTED TO 93% OF THE MAXIMUM UNIT WEIGHT AS DETERMINED BY ASTM D-2041.
- THE PAVEMENT SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 301 (SUBGRADE PREPARATION) OF THE IDOT SS. SUBGRADE SHALL BE COMPACTED TO A MINIMUM IFR OF 3.0.
- THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 351 (AGGREGATE BASE COURSE) OF THE IDOT SS.
- NO AGGREGATE BASE COURSE SHALL BE INSTALLED UNTIL THE SUBGRADE HAS BEEN APPROVED BY THE OWNER.
- HOT-MIX ASPHALT PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 406 (HOT-MIX ASPHALT BINDER AND SURFACE COURSE).
- NO HOT-MIX ASPHALT BINDER SHALL BE INSTALLED UNTIL THE AGGREGATE BASE COURSE HAS BEEN APPROVED BY THE OWNER. AGGREGATE BASE COURSE PRIME COAT (MC-30) SHALL BE APPLIED AT A RATE OF 0.25 TO 0.5 GALLONS PER SQUARE YARD, THE EXACT RATE TO BE SPECIFIED BY THE ENGINEER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY SIGNS, BARRICADES, FENCES, ETC. TO KEEP THE CONSTRUCTION SITE IN COMPLIANCE WITH STATE AND FEDERAL LAWS. THE MUNICIPALITY MAY REQUIRE ADDITIONAL SIGNAGE OR BARRICADES. THE CONTRACTOR SHALL COMPLY WITH ALL SUCH MUNICIPAL REQUIREMENTS.
- ALL EXISTING PAVEMENT, SIDEWALK, OR CURB AND GUTTER TO BE REMOVED SHALL BE SAWCUT ALONG THE LIMITS OF THE PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.
- CURB AND GUTTER REMOVAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 440 (REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES) OF THE IDOT SS.
- ALL PAVEMENT MARKINGS SHALL BE POLYUREA. REFER TO IDOT SS FOR MORE INFORMATION.
- P.C.C. PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 420 (PORTLAND CEMENT CONCRETE PAVEMENT) OF THE IDOT SS. PCC PAVEMENT SHALL BE CLASS PV, UNLESS OTHERWISE NOTED. JOINTS IN CONCRETE PAVEMENT SHALL BE PROVIDED IN ACCORDANCE WITH THE DETAIL ON SHEET 8 AND AS NOTED BELOW:
 - EXPANSION JOINTS SHALL BE PROVIDED BETWEEN THE CONCRETE PAVEMENT AND PROPOSED BUILDING. A ONE (1) INCHED PREFORMED EXPANSION JOINT FILLER SHALL BE EXTEND THE ENTIRE DEPTH OF THE PAVEMENT.
- COMBINATION CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 606 (CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH) OF THE IDOT SS.
 - EXPANSION JOINTS SHALL BE PLACED AT THE END OF RADI AND AT INTERVALS OF NO MORE THAN 40 FEET IN STRAIGHT LINE PORTIONS OF WORK. EXPANSION JOINTS SHALL BE PROVIDED WHERE THE CURB AND GUTTER ABUTS AN EXISTING OR PROPOSED SIDEWALK, BUILDING, PERMANENT STRUCTURE OR EXISTING OR PROPOSED CONCRETE DRIVEWAY. EXPANSION JOINTS ARE REQUIRED 5 FEET ON EACH SIDE OF ANY STORM SEWER STRUCTURE IN THE CURB LINE. EXPANSION JOINTS SHALL CONSIST OF 1-INCH PREFORMED EXPANSION JOINT FILLER MATERIAL.
 - EXPANSION JOINTS SHALL INCLUDE 12-INCH LONG #4 DOWEL BARS WITH CAP.
 - CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NO MORE THAN 10 FEET. CONTRACTION JOINTS SHALL BE SAWCUT TO A DEPTH EQUAL TO 1/3 THE THICKNESS OF THE GUTTER FLAG AND TO A WIDTH OF NOT LESS THAN 1/8 INCH.
 - A MINIMUM 4-INCH COMPACTED AGGREGATE BASE SHALL BE PROVIDED UNDER THE CURB AND GUTTER AND SHALL EXTEND 1-FOOT BEHIND BACK OF CURB.

- SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 424 (PORTLAND CEMENT CONCRETE SIDEWALK) OF THE IDOT SS.
 - EXPANSION JOINTS, 3/4-INCH THICK, SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET IN THE SIDEWALK. WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED IN LINE WITH THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICAL.
 - EXPANSION JOINTS SHALL BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK ACCESSIBILITY RAMPS AND CURBS WHERE THE RAMP ABUTS A CURB.
 - CONTRACTION JOINTS SHALL EXTEND 1/4 THE DEPTH OF THE SIDEWALK AND SHALL NOT BE LESS THAN 1/8 INCH NOR MORE THAN 1/4 INCH IN WIDTH. THE JOINTS SHALL BE EDGED WITH AN EDGING TOOL HAVING A 1/4 INCH RADIUS. NO SLAB SHALL BE LONGER THAN 6 FEET NOR LESS THAN 4 FEET ON ANY ONE SIDE, UNLESS OTHERWISE ORDERED BY ENGINEER OR ARCHITECT.
- HOT-MIX ASPHALT BASE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 355 (HOT-MIX ASPHALT BASE COURSE) OF THE IDOT SS.
- ALL CONCRETE FOR SIDEWALK AND CURB AND GUTTER IS TO BE CLASS S1, 6.1 BAG MIX WITH NO FLY ASH.
- HOT-MIX ASPHALT SPECIFICATIONS SHALL BE AS FOLLOWS:

ITEM	AIR VOIDS
HMA SURFACE COURSE, MIX "D" IL-9.5MM, NS0, 1.5" MIN.	4% AT 50 GYR.
HMA BINDER COURSE, IL-19.0, NS0; 2.25" MIN	4% AT 50 GYR.
LEVELING BINDER (MACHINE METHOD), IL-4.75, NS0, 3/4" MIN	3.5% AT 50 GYR.
CLASS D PATCHES (HMA BINDER IL-19mm)	4% AT 70 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR ALL NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE SPECIAL PROVISIONS. APPLICABLE DISTRICT ONE SPECIAL PROVISIONS MAY INCLUDE, "RECLAIMED ASPHALT PAVEMENT AND SHINGLES", "HMA MIXTURE IL-4.75" AND "STONE MATRIX ASPHALT (SMA)".

- ALL CURBS CONSTRUCTED OVER A UTILITY TRENCH SHALL BE REINFORCED WITH TWO EQUALLY SPACED #4 REBARS CENTERED IN THE FLAG FOR A LENGTH OF 10 FEET ON EITHER SIDE OF THE TRENCH. SIDEWALKS SHALL BE TREATED IN THE SAME MANNER USING THREE EQUALLY SPACED #4 REBARS CENTERED IN THE SIDEWALK FOR A LENGTH OF 10 FEET ON EITHER SIDE OF THE TRENCH.
- ADA ACCESSIBLE CURB RAMPS SHALL BE PROVIDED AT ALL LOCATIONS WHERE THE SIDEWALK ADJOINS THE CURB AND GUTTER. ALL ADA CURB RAMPS SHALL PROVIDE DETECTABLE WARNINGS PER THE DETAIL NOTED WITH THIS PLAN SET. THE INSTALLATION OF THESE DETECTABLE WARNINGS SHALL CONFORM TO SECTION 424 OF THE IDOT STANDARD SPECIFICATIONS AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.

F. SANITARY SEWER

- ALL SANITARY SEWERS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL MUNICIPAL REQUIREMENTS OR SANITARY DISTRICT SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS).
- SANITARY SEWERS SHALL BE:
 - POLYVINYL CHLORIDE PIPE (PVC), SDR 26 PER ASTM D-3034 WITH ELASTOMERIC JOINTS IN ACCORDANCE WITH ASTM D-3212 AND F477 or
 - DUCTILE IRON PIPE (DIP) ANSI A21.51, CLASS 52 PER ANSI A 21-50 (AWWA C150), CEMENT LINED WITH BITUMINOUS COATING PER ANSI A21.4 (AWWA C104), WITH MECHANICAL OR RUBBER RING (SLIP SEAL OR PUSH-ON) JOINTS PER ANSI A21.11 (AWWA C111 AND C600);
- GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-7 AND SHALL BE INSTALLED PER ASTM D2321-89. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- SELECTED GRANULAR BACKFILL, IDOT CA-7 SHALL BE USED WHERE THE TOP OF TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, CURB AND GUTTERS, DRIVEWAYS AND SIDEWALKS.
- SANITARY SEWER TESTING SHALL INCLUDE EXFILTRATION TEST OR INFILTRATION TESTING IN ACCORDANCE WITH THE SSWS, MUNICIPAL REQUIREMENTS AND/OR SANITARY DISTRICT REQUIREMENTS. ALL SANITARY SEWERS CONSTRUCTED OF FLEXIBLE PIPE SHALL BE DEFLECTION TESTED IN ACCORDANCE WITH THE SSWS, MUNICIPAL REQUIREMENTS AND/OR SANITARY DISTRICT REQUIREMENTS. DEFLECTION TESTING SHALL NOT OCCUR SOONER THAN THIRTY (30) DAYS AFTER COMPLETION OF THE SEWER INSTALLATION OF THE SECTION BEING TESTED.
- SANITARY MANHOLES SHALL BE TESTED FOR WATERTIGHTNESS BY EITHER ASTM C969 - STANDARD PRACTICE FOR INFILTRATION AND EXFILTRATION ACCEPTANCE TESTING OF INSTALLED PRECAST CONCRETE PIPE SEWER LINES OR ASTM C 1244 - STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE PRESSURE (VACUUM) TEST.
- SANITARY SEWER SERVICE FOR THE PROPOSED BUILDINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS FOR SIZE AND LOCATION. LATER REVISIONS TO ARCHITECTURAL PLANS MAY EXIST, THEREFORE, CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SERVICE AS SHOWN ON ENGINEERING PLANS IS CONSISTENT WITH ARCHITECTURAL PLANS. NOTIFY ENGINEER OR OWNER IF DISCREPANCY EXISTS.

G. STORM SEWER

- ALL STORM SEWERS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MWRDC AND THE LOCAL MUNICIPAL REQUIREMENTS, THE IDOT SS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- STORM SEWERS SHALL BE:
 - REINFORCED CONCRETE PIPE, ASTM C-76, MINIMUM CLASS III WITH O-RING JOINTS IN ACCORDANCE TO ASTM C-443.
 - POLYVINYL CHLORIDE PIPE (PVC) PIPE, SDR 26, PER ASTM D-3034 WITH ELASTOMERIC JOINTS IN ACCORDANCE WITH ASTM D-3212;

- GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-7 AND SHALL BE INSTALLED PER ASTM D2321-89. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- SELECTED GRANULAR BACKFILL, IDOT CA-7 SHALL BE USED WHERE THE TOP OF TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, CURB AND GUTTERS, DRIVEWAYS OR SIDEWALKS.

H. WATER MAIN

- ALL WATER MAINS SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL MUNICIPAL REQUIREMENTS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS).
- WATER MAINS SHALL BE:
 - DUCTILE IRON PIPE CONFORMING TO ANSI A 21.51 (AWWA C151), CLASS 52 PER ANSI A 21-50 (AWWA C150), SEAL COATED OR CEMENT LINED PER ANSI A21.4 (AWWA C104), WITH MECHANICAL OR RUBBER RING (SLIP SEAL OR PUSH ON) JOINTS.
 - POLYVINYL CHLORIDE PIPE CONFORMING TO ASTM D 2241 AND BE DESIGNATED CLASS 12454B (CPVC 1120), CLASS 12454C (PVC 1120) IN CONFORMANCE WITH ASTM D1784. THE PIPE SHALL BE RATED AT 160 PSI OR GREATER AT 73.4 DEGREES F. ALL PIPING SHALL BE A MINIMUM OF SDR 26. ALL PIPING AND FITTINGS SHALL BEAR THE NSF SEAL OF APPROVAL. THE PIPING SHALL BE VISIBLY MARKED WITH THE SPECIFIC SDR RATING NUMBER.
 - ALL WATER SERVICES (2.5" DIA. AND SMALLER) SHALL BE COPPER WATER TUBE TYPE K OR GREATER SOFT TEMPER, FOR UNDERGROUND SERVICE AND CONFORMING TO ASTM B88 AND ASTM B251. THE PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK AND A MARK INDICATIVE OF THE TYPE OF PIPE. THE OUTSIDE DIAMETER OF THE PIPE SHALL CONFORM TO ASTM B251 TABLE 2. FITTINGS FOR SERVICE PIPE SHALL BE BRASS AND OF THE COMPRESSION TYPE FOR TYPE K TUBING. ONE PIECE SHALL BE USED FROM THE MAIN TO THE CURB STOP AND ONE PIECE FROM THE CURB STOP TO THE METER SPREAD FOR LENGTHS OF 100 FEET OR LESS.
- A MINIMUM OF 5'-6" OF COVER SHALL BE MAINTAINED OVER THE WATER MAIN AND SERVICES AT ALL TIMES, UNLESS SPECIAL PROVISIONS HAVE BEEN MADE.
- GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-7 AND SHALL BE INSTALLED PER ASTM D2321-89. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- SELECTED GRANULAR BACKFILL, IDOT CA-7 SHALL BE USED WHERE THE TOP OF THE TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, CURB AND GUTTERS, DRIVEWAYS AND SIDEWALKS.
- ALL WATER VAULTS SHALL HAVE THE WORD "WATER" CAST INTO THE LID.
- VALVES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO THE RESPECTIVE STANDARDS OF THE LATEST AWWA C500, AWWA C509 AND AWWA C515 STANDARDS. ALL MATERIALS USED IN THE MANUFACTURE OF WATERWORKS GATE VALVES SHALL CONFORM TO THE AWWA STANDARDS DESIGNED FOR EACH MATERIAL LISTED. ALL VALVES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE SSWS.
- WATER MAINS SHALL BE PRESSURE TESTED, LEAK TESTED AND CHLORINATED IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- WATER SERVICE FOR THE PROPOSED BUILDINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS FOR SIZE AND LOCATION. LATER REVISIONS TO THE ARCHITECTURAL PLANS MAY EXIST, THEREFORE, CONTRACTOR SHALL VERIFY LOCATION AND SIZE OF WATER SERVICES AS SHOWN ON ENGINEERING PLANS IS CONSISTENT WITH ARCHITECTURAL PLANS. NOTIFY ENGINEER OR OWNER IF DISCREPANCY EXISTS.
- WATER MAINS SHALL BE LOCATED AT LEAST 10-FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER, STORM SEWER, COMBINED SEWER OR SEWER SERVICE CONNECTION. WATER MAINS MAY BE LOCATED CLOSER THAN 10-FEET TO A SEWER LINE WHEN:
 - LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10-FEET AND
 - THE WATER MAIN INVERT IS AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER; AND
 - THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER. WHEN IT IS IMPOSSIBLE TO MEET THE CONDITIONS ABOVE, BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF EQUIVALENT WATER MAIN STANDARDS OF CONSTRUCTION WITH SLIP-ON OR MECHANICAL JOINTS. THE SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.
- WATER MAIN SHALL BE SEPARATED FROM STORM AND SANITARY SEWERS AS FOLLOWS:
 - WATER MAINS SHALL BE SEPARATED FROM A SEWER SO THAT IT'S INVERT IS A MINIMUM OF 18-INCHES ABOVE THE CROWN OF THE SEWER WHEREVER WATER MAINS CROSS A STORM SEWER, SANITARY SEWER OR SEWER SERVICE CONNECTION. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF WATER MAIN LOCATED WITHIN 10-FEET HORIZONTALLY OF ANY SEWER CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER or
 - BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINTS OF PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (a) ABOVE OR THE WATER MAIN PASSES UNDER A SEWER or
 - A VERTICAL SEPARATION OF 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN or
 - CONSTRUCTION OF WATER MAIN QUALITY PIPE SHALL EXTEND ON EACH SIDE ON THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER IS AT LEAST 10-FEET.
- FIRE HYDRANTS SHALL CONFORM TO THE AMERICAN WATER WORKS ASSOCIATION STANDARD C-502 AND SHALL BE OF A MUELLER TYPE THAT HAS BEEN ADOPTED BY THE MUNICIPALITY AS A STANDARD. HYDRANTS SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF ONE HUNDRED FIFTY (150) PSI AND A TEST PRESSURE OF THREE HUNDRED (300) PSI. HYDRANT BODY CASTING SHALL BE MANUFACTURED OF CAST IRON OR DUCTILE IRON. ALL NOZZLES SHALL BE MANUFACTURED OF AN ALUMINUM GRADE OF BRONZE AND ACCURATELY THREADED IN ACCORDANCE WITH NATIONAL STANDARD HOSE COUPLING THREAD SPECIFICATIONS. THE HYDRANT SHALL OPEN BY TURNING LEFT (COUNTER-CLOCKWISE) AND SHALL BE SO MARKED. HYDRANTS SHALL BE OF THE "BREAK-AWAY" OR "TRAFFIC" BASE DESIGN.

I. EROSION AND SEDIMENT CONTROL

- THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN.
- REFER TO THE STORMWATER POLLUTION PREVENTION PLAN FOR DETAILED SPECIFICATIONS.

J. LANDSCAPING

- ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEED. SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 250 (SEEDING) OF THE IDOT SS. SEEDING MIXTURE SHALL BE CLASS 1 LAWN MIXTURE, UNLESS OTHERWISE INDICATED.
- EROSION CONTROL BLANKET SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 251 (MULCH) OF THE IDOT SS. EROSION CONTROL BLANKET SHALL BE EXCELSTOR DS-150 OR SC-150 DEPENDING ON THE INTENDED USE.

K. TRAFFIC CONTROL

- TRAFFIC CONTROL SIGNS SHALL BE INSTALLED DURING CONSTRUCTION IN ACCORDANCE WITH THE IDOT SS AND IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS SHALL BE MAINTAINED.

MWRD TYPICAL GENERAL NOTES

- THE MWRD LOCAL SEWER SYSTEM SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
- ELEVATION DATUM IS USGS NAVD88
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO STORM SEWER SYSTEM.
- ALL SANITARY SEWER PIPE MATERIALS AND JOINTS, (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO:

PIPE MATERIAL SPECIFICATIONS

VITRIFIED CLAY PIPE	JOINT SPECIFICATIONS
VCP C-700	C-425
VCP (NO-BEL) C-700	C-425
COLLAR	D-1784
CONCRETE PIPE C-14	
RCP C-76	C-443
ACP C-428	D-1869
ABS SEWER PIPE	
SOLID WALL 6" DIAMETER SDR 23.5, ABS D-2751	D-2751
ABS COMPOSITE/TRUSS PIPE	
8"- 15" DIAMETER, ABS D-2680	D-2680
PVC GRAVITY SEWER PIPE	
6"- 15" DIAMETER SDR 26, D-3034	D-3212 OR D-2855
18"- 27" DIAMETER F/DY= 46, F-679	D-3212 OR D-2855
CISP A-47	C-564
DUCTILE IRON PIPE A-21.51	A-21.11

NOTE: (THE DISTRICT HAS APPROVED LESS COMMON PIPEMATERIALS ON QUALIFIED BASIS IN ADDITION TO THOSE ABOVE. PLEASE CONTACT THE DISTRICT IF CONSIDERING USING PIPE NOT LISTED ABOVE.)

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE 1/4" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- A NON-SHEAR MISSION COUPLING SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR MATERIALS.
- WHEN CONNECTIONS 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:
 - USING A CIRCULAR CORING MACHINE, CORE DRILL AN OPENING INTO THE EXISTING PIPE AND INSTALL A SADDLE OR PRE-FABRICATED TEE.
 - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
 - 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.
- 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 WATERMANS 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 ABOVE CAN NOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATERMAIN, THE SEWER SHALL BE CONSTRUCTED TO WATERMAIN STANDARDS.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIALS OR REMOVED.
- 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.
- FOOTING DRAINS, EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS AND FOR UNDERDRAINS SERVING GREEN INFRASTRUCTURE, 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, OTHER THAN THOSE SERVING GREEN INFRASTRUCTURE, 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.

1/27/2016 3:09:16 PM \\s-12222-Engineering\Projects\Library\10-specifications\mwrdsf



Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

CLIENT:

FOXFORD STATION, LLC
12 SALT CREEK LANE, SUITE 400
HINSDALE, ILLINOIS 60521
PH: 630-887-1705 FX: 630-887-1749

DESIGNED	RDB
DRAWN	WHM
APPROVED	TKB
DATE	07-25-14
SCALE	N.T.S.

01-06-15	REVISED PER VILLAGE COMMENTS	RDB
DATE	DESCRIPTION OF REVISION	BY

PROJECT SPECIFICATIONS
FOXFORD STATION
WESTERN SPRINGS, ILLINOIS

SHEET
10 OF 10
PROJECT NUMBER: 2222
© MACKIE CONSULTANTS LLC, 2016
ILLINOIS FIRM LICENSE 184-002694