

GENERAL NOTES

- THE CONTRACTOR SHOULD FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND PROPOSED SITE WORK (DIMENSION LAYOUT, ETC) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY EXISTING SITE CONDITION DIFFER FROM THAT IDENTIFIED HEREIN, THE CONTRACTOR SHALL NOTIFY ENGINEERING IMMEDIATELY PRIOR TO THE START OF CONSTRUCTION.
- ALL CONTRACTORS WILL TO THE FULLEST EXTENT PERMITTED BY LAW, IDENTIFY AND HOLD HARMLESS ENGINEERING, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY AND DAMAGES LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
- THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY ENGINEERING.
- THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
- THE CONTRACTOR IS RESPONSIBLE TO RESOTRE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. ENGINEERING WILL REVIEW IN ACCORDANCE WITH THE DESIGN INTENTS AS REFLECTED WITHIN THE PLAN SET.
- THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION AND THE TRAFFIC CONTROL PLANS APPROVED BY NJDOT.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
- THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
- SHOULD AN EMPLOYEE OF ENGINEERING AND DESIGN LLC, BE PRESENT ON-SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.
- 2007 STANDARD NEW JERSEY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH AMENDMENTS THERETO TO GOVERN.
- 2007 STANDARD NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS ARE APPLICABLE TO THIS PROJECT, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.
- MODULAR BLOCK WALL, DRIVE-THRU CANOPY FOOTINGS, AND SIGN FOUNDATION PLANS TO BE DESIGNED BY OTHERS. CONTRACTOR AND WALL ENGINEER RESPONSIBLE TO ENSURE ALL STRUCTURAL COMPONENTS OF RETAINING WALL (GEOGRID, FOUNDATION, ETC.) SHALL BE LOCATED ON SUBJECT PROPERTY. STRUCTURAL AND STABILITY CALCULATIONS AND CONSTRUCTION PLANS FOR RETAINING WALLS PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN NEW JERSEY SHALL BE REQUIRED. A GEO-TECHNICAL ENGINEER LICENSED IN THE STATE OF NJ SHALL BE RETAINED BY CONTRACTOR OR OWNER AND SHALL BE ONSITE DURING CONSTRUCTION.
- SIDEWALK DESIGN AND CONSTRUCTION CRITERIA SHALL BE IN PLACE AND APPROVED BY THE TOWNSHIP PRIOR TO ISSUANCE OF THE BUILDING PERMIT.
- DEMOLITION NOTES
 - THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 - THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE OTHER SITE PLAN AND GEOTECHNICAL DOCUMENTS AND ASSOCIATED REPORTS INCLUDING ALL DEMOLITION ACTIVITIES INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
 - THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
 - EXPLOSIVES SHALL NOT BE UTILIZED FOR DEMOLITION.
 - ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE LOCATED AND DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
 - DEMOLISHED DEBRIS SHALL NOT BE BURIED ON-SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.
 - CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION REQUIRED IN THIS PLAN SET. THE DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING THE SITE PLAN IMPROVEMENTS.
 - CONTRACTOR IS RESPONSIBLE TO PERFORM AN ASBESTOS SURVEY PRIOR TO DEMOLITION AND PERFORM ABATEMENT IN ACCORDANCE WITH STATE REQUIREMENT.
 - CONTRACTOR TO REMOVE ANY EXISTING SEPTIC SYSTEM, IF APPLICABLE, IN ACCORDANCE WITH STATE REQUIREMENTS.
 - ALL EXPOSED SOILS FOR DEMOLITION SHALL BE STABILIZED TEMPORARILY, UNTIL NEXT PHASE OF CONSTRUCTION IS TO BEGIN.

GRADING AND EARTHWORK PREPARATION NOTES

- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WASTED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL THE MATERIAL BROUGHT TO THE SITE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES AND STORMWATER BASINS, TO ENSURE THE STRUCTURAL INTEGRITY OF SURROUNDING STRUCTURES AND STABILITY OF SOILS.
- ALL CURBING WITHIN SITE SHALL BE BELGIUM BLOCK CURB WITH A 6" FACE REVEAL. CONTRACTOR TO SUPPLY ALL STAKEOUT CURB CUT SHEETS TO TOWNSHIP ENGINEERING DEPT. AND ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CURB ERECTION.
- MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS.
 CURB GUTTER: 0.50%
 CONCRETE SURFACES: 1.00%
 ASPHALT SURFACES: 1.00%
- ELEVATIONS ON RETAINING WALLS ARE FOR THE EXPOSED PORTION OF THE WALL AND DOES NOT INCLUDE THE FOOTING ELEVATION. FOOTING ELEVATIONS SE SHALL BE DETERMINED BY THE WALL DESIGNER LICENSED IN THE STATE UPON WHICH THE WORK OCCURS.
- POSITIVE DRAINAGE OF 1% MINIMUM SLOPES SHALL BE PROVIDED AWAY FROM ALL BUILDING.
- ALL EARTHWORK PREPARATION AND GRADING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER OF RECORD OUTLINED IN THE "REPORT OF GEOTECHNICAL INVESTIGATION PROPOSED CHASE BANAK BRANCH OFFICE DEVELOPEMNT".

ERSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
- SEE SOIL EROSION AND SEDIMENT CONTROL PLAN FOR MORE DETAIL.
- REFER TO SOIL EROSION AND SEDIMENT CONTROL PLAN FOR AREAS RESTRICTED TO LIGHTWEIGHT LOW IMPACT CONSTRUCTION EQUIPMENT ONLY FOR FINAL GRADING OF PROPOSED LAWN AREAS. TO QUALIFY AS LIGHT WEIGHT AND LOW IMPACT THE EQUIPMENT MUST EXERT A MAXIMUM PRESSURE OF EIGHT POUNDS PER SQUARE INCH ON THE GROUND SURFACE DURING GRADING OPERATIONS. IF DURING CONSTRUCTION INSPECTION IT IS FOUND THAT EQUIPMENT EXCEEDS THE MAXIMUM EIGHT POUNDS PER SQUARE INCH REQUIREMENT HAS BEEN USED FOR BACKFILLING OR GRADING OF DESIGNATED LAWN AREAS, THE CONTRACTOR SHALL MODIFY THE AFFECTED LAWN AREAS TO A MINIMUM OF 1 1/2 INCHES BELOW FINISHED GRADE. PROCEDURES FOR THE RESTORATION OF THE PERMEABILITY OF THE UPPER 1 1/2 INCHES OF COMPACTED SOIL SHALL BE SITE SPECIFIC, AND SUBJECT TO THE APPROVAL OF THE TOWNSHIP ENGINEER.

LANDSCAPING NOTES

- THERE ARE NO VEGETATION OR TREES NEAR THE UNDERGROUND BASIN SO NO PROCEDURES ARE REQUIRED.

GENERAL NOTES

- THE ON-SITE STORM SEWER UPGRADES WILL FLOW INTO THE EXISTING COMBINED SEWER OFFSITE SEE C103.
- ELEVATIONS ARE REFERENCED TO THE SURVEY PROVIDED BY ROBERT F. HOGAN LAND SURVEYOR LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM AVAILABLE RECORD INFORMATION OF THE RESPECTIVE UTILITY COMPANIES AND CITY AGENCIES, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. THIS INFORMATION IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS. CONSULT THE APPROPRIATE UTILITY COMPANY OR AGENCY PRIOR TO DESIGNING IMPROVEMENTS, COMMENCING DESIGN DEMOLITION OR CONSTRUCTION.
- NEW JERSEY STATE LAW, REQUIRES EXCAVATORS AND CONTRACTORS TO GIVE UTILITY COMPANIES OR AGENCIES AT LEAST TWO (BUT NO MORE THAN TEN) WORKING DAYS NOTICE BEFORE DIGGING, DRILLING OR BLASTING.
- THIS SITE PLAN IS NOT A TITLE SURVEY. THIS SURVEY IS NOT TO BE USED FOR TITLE PURPOSES.
SEWER MANHOLE LOCATIONS, RIM AND INVERT ELEVATIONS SHOWN HEREIN ARE FROM FIELD MEASUREMENTS UNLESS SHOWN WITH AN (R) WHICH DENOTES AS PER RECORD INFORMATION. RECORD SEWER INFORMATION SHOWN WAS OBTAINED FROM NBMUA. THE SIZES OF SEWERS ARE SHOWN AS PER RECORD INFORMATION AND APPROXIMATE VISUAL CONFIRMATION.
- PERC TEST WAS PERFORMED WITH MIN SEEPAGE OF 1" PER 7 MINS
- REPLACE EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION AND PROVIDE TEMPORARY CURBING TO REPLACE EXISTING DAMAGED DURING CONSTRUCTION.
- ALL NEW PIPES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH UNITED WATER REQUIREMENTS OR OTHER APPLICABLE REQUIREMENTS IN THE PIPING SCHEDULE. HOWEVER, IN NO CASE SHALL THE TEST REQUIREMENTS BE LESS THAN 150 PSI FOR 90 MINUTES WITH ZERO LEAKAGE.
- UNDER NO CONDITIONS SHALL PIPES BE INSTALLED SUCH THAT THEY ARE IN DIRECT PHYSICAL CONTACT. A RUBBER GASKET IS REQUIRED BETWEEN ALL PIPES AS PER MANUFACTURERS SPECIFICATIONS.
- PIPING WILL GENERALLY SLOPE UNIFORMLY BETWEEN THE ELEVATION SHOWN ON THE DRAWINGS. NO SAGS OR CRESTS PERMITTED UNLESS OTHERWISE INDICATED.
ALL BURIED PIPING WILL HAVE A MINIMUM OF 3.5 FEET OF COVER. FINISH GRADE, UNLESS OTHERWISE INDICATED ON A PIPING PROFILE. WATER PUMPING PIPING WILL HAVE A MINIMUM OF 4 FEET OF COVER BENEATH PROPOSED GRADE.
- PIPING WHICH IS EXPOSED DURING EXCAVATION AND IS TO REMAIN IN SERVICE, SHALL BE SUPPORTED, BRACED OR OTHERWISE PROTECTED DURING CONSTRUCTION
- ALL EXCAVATIONS DEEPER THAN FIVE FEET SHALL BE PERFORMED UTILIZING EARTH
- THE EARTH RETENTION SYSTEM SHALL BE DESIGNED TO SUPPORT HORIZONTAL PRESSURES FROM EARTH, AND ANY EQUIPMENT LOAD ADJACENT TO THE RETENTION SYSTEM.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APURTANCES DURING CONSTRUCTION.
- NORTH HUDSON SEWERAGE AUTHORITY SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO CONNECTION TO THE SEWER MAIN.
- PRIOR TO STARTING THE WORK IN AN AREA AFFECTING MUNICIPAL STORM SEWER LINE, CONTRACTOR SHALL HAVE PREPARED A PLAN FOR CONDUCTING THE WORK WHICH AT MINIMUM INCLUDES THE FOLLOWING INFORMATION RELATED TO THE SUBJECT WORK:
 A. IDENTIFIES ANY DISRUPTION OF OPERATIONS AND THE ESTIMATED SCHEDULE AND DURATION OF THE WORK.
 B. PLANS FOR ISOLATION, DRAINING AND FLUSHING OF EXISTING SYSTEMS.
 C. PLANS OF ARRANGING AND PARTICIPATING IN THE NECESSARY COORDINATION MEETINGS WITH PLANT STAFF TO COORDINATE WORK WITHOUT DISRUPTING PLANT OPERATIONS.
- ALL NEW PIPING; PIPE, DUCT OR CONDUIT ARE SHOWN WITH A HEAVIER LINE.
- ALL PROPOSED RIM, INVERT, CONTOUR, ETC. ARE SHOWN WITH A HEAVIER LINE.
- ALL DISTURBED AREAS NOT SCHEDULED TO RECEIVE ASPHALTIC CONCRETE PAVEMENT, CONCRETE WALKS OR WALKWAYS SHALL BE SEEDED.
- NORTH HUDSON SEWERAGE AUTHORITY SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE STORM WATER DETENTION SYSTEM.
- THE OWNER IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF ALL LATERALS TO THE POINT OF CONNECTION WITH THE NHSA SEWER MAIN WITHIN PALISADE AVENUE.

ELECTRICAL COMMUNICATIONS

COORDINATE WITH PSE&G, VERIZON, AND CABLE COMPANIES.

NATURAL GAS

NATURAL GAS PIPES TO BE SIZED BY PSE&G.

STORM SEWER

LOCATION AND NUMBER OF DOWNSPOUTS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS.

ALL EXPOSED DOWNSPOUTS IN THE PARKING AREA TO BE "DIP" AND POSITIONED TO AVOID POTENTIAL IMPACT FROM VEHICLES.

DETENTION OPERATIONAL & MAINTENANCE PLAN

- OWNER MUST DO OWN MAINTENANCE OF SYSTEM AND ALL RECORDS MUST BE KEPT ON-SITE FOR A PERIOD OF THREE YEARS BY THE OWNER OF THE STORMWATER MANAGEMENT SYSTEM. THESE RECORDS SHALL BE MADE AVAILABLE TO THE AUTHORITY WITHIN 72 HOURS UPON THE AUTHORITY'S REQUEST TO REVIEW THESE RECORDS.
- THE AUTHORITY RESERVES THE RIGHT TO INSPECT ALL STORMWATER MANAGEMENT SYSTEMS. THE OWNER OF THE STORMWATER MANAGEMENT SYSTEM SHALL PROVIDE ACCESS FOR INSPECTION TO THE AUTHORITY WITHIN 72 HOURS OF THE AUTHORITY'S REQUEST TO INSPECT THE STORMWATER MANAGEMENT SYSTEMS.
- FAILURE TO MAINTAIN ADEQUATE MAINTENANCE RECORDS, PERFORM MAINTENANCE, AND/OR DENY THE AUTHORITY ACCESS TO MAINTENANCE RECORDS OR INSPECTION WITHOUT CAUSE IS SUBJECT TO FINES BY THE AUTHORITY AS DETAILED IN THE SEWER CONNECTION: APPLICATION PROCEDURES AND FEE SCHEDULE DOCUMENT.

UTILITY NOTES

ALL UTILITIES TO BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. LOCATIONS OF UTILITIES WITHIN BUILDING SHOWN HERE ARE SCHEMATIC. ACTUAL LOCATIONS TO BE DETERMINED BY UTILITY CO. AND ARCHITECT.

REFER TO ANY PLUMBING PLANS FOR LOCATION OF DOWNSPOUTS, SANITARY LATERALS & UTILITY SERVICE ENTRANCES.

ALL UTILITY & SEWER RISERS IN PARKING AREA ARE TO BE PROTECTED FROM IMPACT.

CONTACT UTILITIES TO DETERMINE EXACT LOCATION OF CONNECTION AND WHERE PRACTICAL, IF EXISTING CONNECTIONS ARE TO BE MAINTAINED.

DISCONNECT ALL UTILITIES, DETERMINE, WHERE APPLICABLE, IF ANY EXISTING LATERALS ARE TO BE REUSED. UNUSED SANITARY SEWER LATERALS ARE TO BE REMOVED TO THE MAIN AND THE MAIN SEALED.

INTERIOR ROOF DRAINAGE LINES TO BE SIZED AND ROUTED TO DETENTION BASIN BY BUILDING MECHANICAL ENGINEER. SEE ARCHITECTURAL PLANS.

WATER

BUILDING SHALL BE SPRINKLERED.

WHERE WATER MAIN IS LOCATED WITHIN 10' HORIZONTALLY OF THE SEWER MAIN, IT SHALL BE AT LEAST 18" HIGHER OR CONCRETE ENCASED.

WATER LATERALS TO BE SIZED BY MECHANICAL ENGINEER.

STORM & SANITARY SEWER

COORDINATE SEWER CONNECTIONS WITH PLUMBING PLANS.

MANHOLE COVERS SHALL READ '(TOWN NAME) (YEAR)' ALL WORK TO BE IN CONFORMANCE WITH THE GUIDELINES OF THE PLUMBING SUBCODE. THE APPLICANT/OWNER SHALL BE IN COMPLIANCE OF N.J.A.C.T.9A .

ENGINEERED SURFACE DRAINAGE PRODUCTS

1. GENERAL:
ADS PVC SURFACE DRAINAGE INLETS SHALL INCLUDE THE DRAIN BASIN TYPE, DRAINS, INLET, MANHOLE COVERS, AND COLLECTORS

2. MATERIALS:
A. THE DRAIN BASINS REQUIRED FOR THIS CONTRACT SHALL BE MANUFACTURED FROM PVC PIPE STOCK, UTILIZING A THERMO-MOLDING PROCESS TO REFORM THE PIPE STOCK TO THE SPECIFIED CONFIGURATION. THE DRAINAGE PIPE CONNECTION STUBS SHALL BE MANUFACTURED FROM PVC PIPE STOCK AND FORMED TO PROVIDE A WATERTIGHT CONNECTION WITH THE SPECIFIED PIPE SYSTEM. THIS JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPE USING FLEXIBLE ELASTOMERIC SEALS. THE PIPE BELL SPIGOT SHALL BE JOINED TO THE MAIN BODY OF THE DRAIN BASIN OR CATCH BASIN. THE PIPE STOCK USED TO MANUFACTURE THE MAIN BODY AND PIPE STUBS OF THE SURFACE DRAINAGE INLETS SHALL MEET THE MECHANICAL PROPERTY REQUIREMENTS FOR FABRICATED FITTINGS AS DESCRIBED BY ASTM D3034, STANDARD FOR SEWER PVC PIPE AND FITTINGS; ASTM F1336, STANDARD FOR PVC GASKETED SEWER FITTINGS.

3. INSTALLATION:
THE SPECIFIED PVC SURFACE DRAINAGE INLET SHALL BE INSTALLED USING CONVENTIONAL FLEXIBLE PIPE BACKFILL MATERIALS AND PROCEDURES. THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS 1 OR 2 MATERIAL AS DEFINED IN ASTM D2321. THE SURFACE DRAINAGE INLETS SHALL BE BEDDED AND BACK-FILLED UNIFORMLY IN ACCORDANCE WITH ASTM D2321. THE DRAIN BASIN BODY WILL BE CUT AT THE TIME OF THE FINAL GRADE SO AS TO MAINTAIN A ONE PIECE, LEAK PROOF STRUCTURE. NO BRICK, STONE OR CONCRETE BLOCK WILL BE USED TO SET THE GRATE TO THE FINAL GRADE HEIGHT. FOR H-25 LOAD RATED INSTALLATIONS, AN 8" TO 10" THICK CONCRETE RING WILL BE POURED UNDER THE GRATE AND FRAME AS RECOMMENDED BY DETAILS PROVIDED FROM THE MANUFACTURER.

DETENTION DESIGN CONDITIONS

- NO COMBINED OR SANITARY SEWER LINES ARE LOCATED IN THE CENTER OF PATERSON PLANK ROAD.
- MODIFIED RATIONAL METHOD WAS USE FOR THE RAINFALL EVENT TIME OF CONCERTRATION.
- THE REQUIREMENTS OF THE DETENTION WILL COMPLY WITH THE NJAC 7:14A-23.6 REQUIREMENTS
- BASED ON EXISTING TO PROPOSED CONDITIONS, THE DETENTION BASIN WAS DESIGNED POST DEVELOPMENT OUTFLOW FOR A 30MINUTE PERIOD OF A TEN YEAR STORM EVENT EQUAL TO TWO YEAR STORM EVENT DURING THE SAME TIME PERIOD.
- MODIFIED RATIONAL METHOD WAS USE FOR THE RAINFALL EVENT TIME OF CONCERTRATION.



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REVISIONS:		APPRO
NO.	DATE	DESCRIPTION

PROJECT LOCATION:
**640-646 RIDGE ROAD
LYNDHURST, N.J.**

PROJECT DESCRIPTION:
**NEW MIX-USED BUILDING
CIVIL PLAN & NOTES**

SEAL:
Guy Lagomarsino

DR. _____ TR. _____ GJ _____
CK _____ RES. _____ CK _____
GUY LAGOMARSINO, P.E.
PROFESSIONAL ENGINEER
PROJECT MANAGER
LICENSE NO. (NJ): 246804054

SCALE:
NTS

DATE:
SEP 2021

C-001
SHEET 1 OF 3

ORIGINAL SURVEY CONDUCTED BY:
ROBERT F HOGAN LAND SURVEYOR
DATED: 9/4/2021



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DETENTION DESIGN CONDITIONS

- 1.1 THE EXISTING CONDITIONS SHOWN ARE A COMPILATION OF INFORMATION TAKEN FROM AN SURVEY BY ROBERT F HOGAN SURVEYOR DATED 9 / 4 / 2021 . WHICH STIPULATE THAT THE SITE WAS ALMOST 100% LOT IMPERVIOUS COVERAGE WITH ASPHALT PAVEMENT.
- 1.2 STRUCTURE FOOTPRINT WILL BE MODIFIED SLIGHTLY
- 1.3 PARKING LOT IS CURRENTLY ASPHALT 3" THICK
- 1.4 THE CONVERSION OF THE EXISTING STRUCTURE WITH A SLIGHT CHANGE IN FOOTPRINT WILL CAUSE A NEW DETENTIONS BASIN TO BE PLACED TO MEET NJDEP BMS STADNRDS

DESIGN NOTES

DESIGN METHOD BASED ON NJ RSI STANDARDS:

CALCULATIONS

TOTAL SITE AREA: 9,720SF
PRE-DEVELOPED:
PRE-BUILDING AREA: 0 SF
IMPERVIOUS AREA: 8620 SF
PERVIOUS AREA TOTAL: 1100 SF

POST DEVELOPMENT
POST BUILDING AREA: 4217 SF
PREVIOUS AREA: 400SF
INCREASE OF IMPERVIOUS AREA TOTAL: 200SF
IMPERVIOUS AREA: 9320 SF

WATER QUALITY: DETAIN A SECOND CONTAIN A 10YR REDUCTION FOR PRE-DEVELOPED TO POST DEVELOPED CONSTRUCTION. DESIGN METHODOLOGY: MODIFIED RATIONAL METHOD

EXISTING CONDITIONS OF THE SITE DOES PROVIDE FOR RUNOFF THROUGH CATCH BASINS TO SANITARY LINE. SITE IS 100% IMPERVIOUS AREA. NEW SHALL REROUTE TO NEW COLLECTOR THAN TO CHAMBER OVERFLOW BACK TO MAINHOLE

PROPOSED AREA OF SITE BUILDING IMPERVIOUS: 4217 SF
C=0.98. NEW CONDITIONS WILL INCLUDE A SITE DRAINAGE SYSTEM TO HANDLE THE REQUIRED STORAGE ON SITE.
PROPOSED CONDITIONS WILL ACCOUNT FOR A DETENTION SYSTEM WITH AN CHAMBER AND PERCOLATION + OVERFLOW TO STREET FOR HIGHER EVENTS FOR SLOW RELEASE OF WATER.

VOLUME PROVIDED BY FOR PIPE DETENTIONS:
VOLUME OF #64 CHAMBERS AT 7' LONG PER CHAMBER 448 LF X3' WIDE EQUALING A TOTAL OF 1986 CF .

9/22/21 RESULTS WERE 1" PER 7 MINS AFTER 30 MINS OF WATER IN HOLE AND AFTER HEAVY WEATHER WET EVENT DAYS BEFORE, SEE RESULTS REPORT

REVISIONS:	NO.	DATE	DESCRIPTION	APPROD.

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CIVIL PLAN & NOTES**

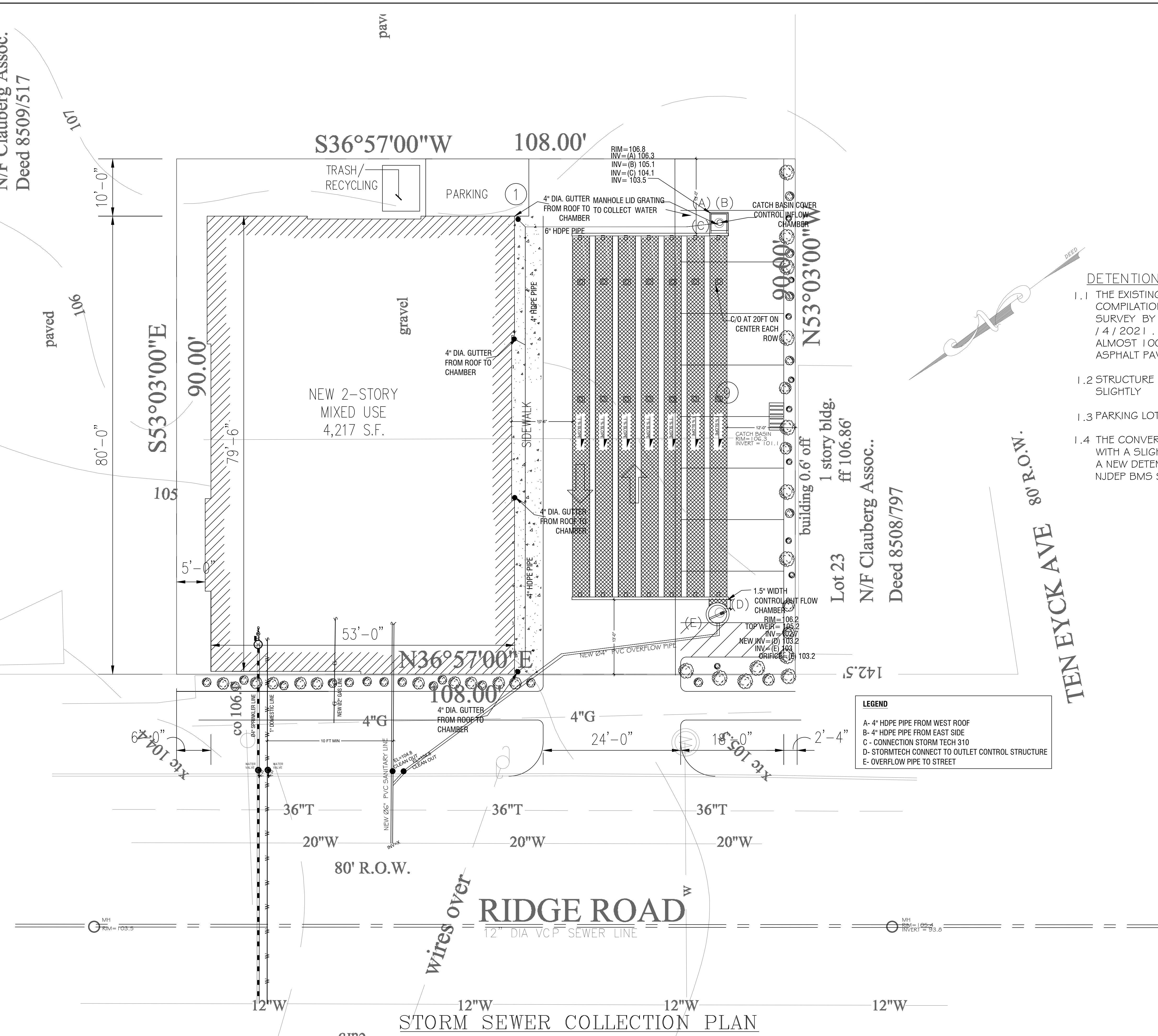
SCALE:
[Signature]

DR. GL TR. GJ
CK CK RES. CK
GUY LAGOMARSINO, P.E.
PROFESSIONAL ENGINEER
PROJECT MANAGER
LICENSE NO. (NJ): 246040534

SCALE:
AS NOTED

DATE:
SEP 2021

C-101
SHEET 2 OF 3



STORM SEWER COLLECTION PLAN

SCALE: 1/8"=1'-0"

TEN EYCK AVE 80' R.O.W.

wires over

RIDGE ROAD
12" DIA VCP SEWER LINE

LEGEND
A- 4" HDPE PIPE FROM WEST ROOF
B- 4" HDPE PIPE FROM EAST SIDE
C - CONNECTION STORM TECH 310
D- STORMTECH CONNECT TO OUTLET CONTROL STRUCTURE
E- OVERFLOW PIPE TO STREET

