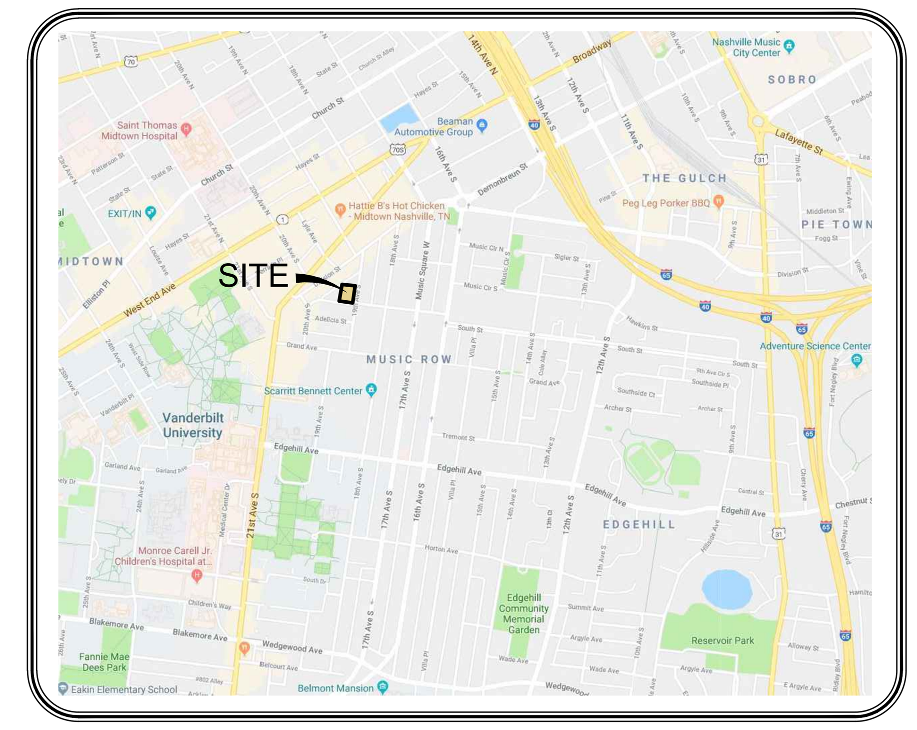
Drawn By: MRS
Checked By: EBF
Approved By: EBF

FINAL SP (2017 SP-095-003)

THE MOORE OFFICE BUILDING

(FORMERLY NAMED 19TH & CHET ATKINS OFFICE BUILDING SP)



LOCATION: 825 19TH AVE S, NASHVILLE, TN
NTS

SITE DATA

PURPOSE NOTE

This is a Final SP for a mixed-use building with ±236,000 SF.

EXISTING PROPERTY INFORMATION

COUNCIL DISTRICT NUMBER:	19
DISTRICT COUNCIL MEMBER:	FREDDIE O'CONNELL
PROPERTY OWNER:	19TH AVE LAND PARTNERS, LLC 144 2ND AVE. N. #300 NASHVILLE, TN 37201
PARCELS & ACREAGE:	*09216026700* 33,257 SF [0.76 AC]
EX. BUILDING SF:	6,069 SF TOTAL (3 BUILDINGS)
TAX MAP:	92-16
METRO GIS ID:	09216026700
STREET ADDRESS:	825 19TH AVE S NASHVILLE, TN 37203
ZONING:	ORI-A/OV-UZO, OFFICE/RESIDENTIAL INTENSIVE ALTERNATIVE
LAND USE:	COMMERCIAL, OFFICE, PARKING LOT
COMMUNITY PLAN:	GREEN HILLS-MIDTOWN COMMUNITY PLAN
POLICY AREA:	10-MT-T5-MU-02, MID-RISE IN GREEN HILLS/MIDTOWN OVERLAY (8-20 STORIES)
BUILDING SETBACKS	
FRONT	0'-15' *Measured from back of sidewalk*
SIDE	0' *Measured from back of sidewalk*
REAR	0' Measured from back of sidewalk
MAX HEIGHT:	105'
BUFFER YARDS:	N/A
MAX FAR:	3.00
MAX ISR:	0.90

PROPOSED DEVELOPMENT SUMMARY

APPLICATION DATE:	7-10-17
SP NUMBER:	2017SP-095-003
ZONING:	SP [COMMERCIAL MIXED USE]
LAND USE:	COMMERCIAL, OFFICE
LAND USE ALLOWED SF:	MAXIMUM OF 236,000 SF OF GENERAL OFFICE OF WHICH 10,000 SF OF THIS MAY BE UTILIZED FOR RETAIL OR OTHER USES PERMITTED IN THE ORI-A ZONE.
LAND USE PROPOSED SF:	MAXIMUM OF 236,000 SF OF GENERAL OFFICE OF WHICH 10,000 SF OF THIS MAY BE UTILIZED FOR RETAIL OR OTHER USES PERMITTED IN THE ORI-A ZONE.

15

BULK REGULATIONS:
BUILDING SETBACKS

FRONT	0'-15'	*Measured from back of sidewalk*
SIDE	0'	*Measured from back of sidewalk*
REAR	0'	

PROPOSED FAR: 7.10 MAX ISR: 0.97

Know what's **below.** **Call** before you dig. 811

PARKING SUMMARY SEE CHART BELOW

REQUIRED PARKING STATEMENT: BASED ON METRO REQUIREMENTS FOR USES. [17.20.030]

REQUIRED BICYCLE STATEMENT: BASED ON METRO REQUIREMENTS [BL2014-714]

SEE TRANSPORTATION DEMAND MANAGEMENT PROGRAM SECTION ON THIS SHEET

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Parking Requirements (per 17.20.030)

Description	Spaces
General Office **(226,000 sqft)**: 1 space per 300 sqft	753
All Other Non-Residential Uses Permitted By the ORI-A Zoning District, Furnitire Store, or Nanobrewery **(10,000 sqft)**: *Restaurant, Full Service used for requirement calculations (Max. potential use). Final parking count to be determined with tenant finish-out.* 1 space per 100 sqft	100
Total Required Parking Spaces (Non-adjusted)	**853**

Parking Adjustments Available (per 17.20.040)

Description	Spaces
General Office **(226,000 sqft)**: UZO district: First 2,000 square feet: exempt; 1 space per 500 square feet for floorspace in excess of 2,000 square feet	448
All Other Non-Residential Uses Permitted By the ORI-A Zoning District, Furnitire Store, or Nanobrewery **(10,000 sqft)**: UZO district: First 1,000 square feet: exempt; 1 space per 150 square feet for floorspace in excess of 1,000 square feet	60
Total Required Parking Spaces (UZO)	**508**

Parking Proposed

Description	Spaces
Parking Spaces Proposed	**596**
ADA Parking Spaces Required: 401-500 spaces: 9 total with 2 van spaces; 501-1,000 spaces: 2% of total parking provided in each lot	12
Loading Space Requirements (per 17.20.130) General office: 1 space Commercial: 1 space	2

Bicycle Parking Requirements (per 17.20.135)

Description	Spaces
General Office: 2 publicly available spaces per establishment or 1 space per 15,000 square feet, whichever is greater	15
Retail: 4 publicly available spaces per establishment	8
Total Required Bicycle Parking	**23**
Total Provided Bicycle Parking	**45**
Provided Bicycle Parking at Indoor/Amenity Area	25
Provided Bicycle Parking at Outdoor/Public Area	20

DEVELOPMENT STANDARDS

1. Buildings shall avoid continuous uninterrupted blank facades. At a minimum, the facade plane shall be interrupted by one of the following for every fifty (50) linear feet of street frontage:
   - A change in building material
   - A horizontal undulation in the building facade of three (3) feet or greater
   - A window, porch, stoop or balcony
2. Sidewalks shall be constructed to the standard of the Major and Collector Street Plan or, if on a local street, to local street standards. The build-to zone for alternative zoning districts shall be measured shall be measured from the Standard right-of-way line as established by the table entitled "Standard Street Right-of-Way Widths" in the Major and Collector Street Plan.

GENERAL NOTES

1. Any standard not specifically addressed herein shall comply with the ORI-A base zoning requirements as of the application date of this Preliminary SP.
2. Lot is to be served with public water and sanitary sewer.
3. Site, open spaces, water quality & detention facilities to be maintained by property owner or property owner's association.
4. Refuse collection, recycling and mechanical equipment shall be fully screened from public view by the combination of fences, walls or landscaping (Section 17.24.060 of the Metro Zoning Code).
5. The developer's final construction drawings shall comply with the design regulations established by the Department of Public Works. Final design may vary based on field conditions.
6. All work in the public right-of-way requires a permit from the Department of Public Works.
7. Storm water will be routed through a stormwater quality management system, sized per the design criteria set forth by the Metro Stormwater Management Manual.
8. Approval of any specific plan does not exempt any parcel shown on the plan or any development within the SP from compliance with all provisions of the Metro Zoning Code with respect to floodplain, steep slopes, unstable soils, sinkholes, rock outcroppings, streams, springs and critical lots.
9. If required, a subdivision plat will be submitted with the Final SP documents.
10. The final site plan/ building permit site plan shall depict the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.
11. Billboards shall not be permitted.
12. Sidewalk construction to comply with MCSP. Sidewalks are to be located within dedicated R.O.W.
13. FEDERAL COMPLIANCE: All development within the boundaries of this plan shall meet the requirements of the Americans with Disabilities Act and the Fair Housing Act.
    ADA: http://www.ada.org
    US Justice Dept: http://www.justice.gov/crt/house/fairhousing/about_fairhousingact.html
14. 78-840 NOTE: Any excavation, fill or disturbance of the existing ground elevation must be done in accordance with Storm Water Management Ordinance No. 78/840 and approved by the Metropolitan Dept. of Water Services.
15. ACCESS NOTE: Metro Water Services shall be provided sufficient & unencumbered access in order to maintain and repair utilities in this site.
16. FIRE DEPT. NOTE: Fire-flow shall meet the requirements of the International Fire Code - 2012 Edition; as amended.
17. DEVELOPMENT SCHEDULE: It is anticipated that the project will begin construction in the 1st quarter of 2020 and will take 12-16 months to be completed.
18. FEMA NOTE: No portion of this parcel described hereon lies within flood hazard area in accordance with "Insurance Rate Map Panel No. 470040-0243F", dated: April 5, 2017 (panel not printed).
19. SURVEY NOTE: Topographic information and boundary information taken from surveys prepared by Barge Waggoner Sumner, & Cannon, Inc dated August 29, 2017.
20. BUFFER NOTE: The buffer along waterways will be an area where the surface is left in a natural state is not disturbed by construction activity. This is in accordance with the Stormwater Management Manual Volume 1 Regulations.
21. C/D NOTE: Size driveway culverts per the design criteria set forth by the Metro Stormwater Management Manual (Minimum driveway culvert in Metro ROW is 15" CMP).

Existing Sidewalks	Chet Atkins Ave: 0' Grass Strip, 8' Sidewalk 19th Ave: 2' Grass Strip, 6' Sidewalk
Proposed Sidewalks	Chet Atkins Ave: 4' Grass Strip, 10' Sidewalk 19th Ave: 3' Bike Blvd, 4' Grass Strip, 8' Sidewalk, 4' Frontage

GENERAL PLAN CONSISTENCY

LAND USE POLICY

This site is located within the T5 MU District of the Midtown community plan. This Transect Category is intended to preserve, enhance, and create high-intensity urban mixed use neighborhoods with a development pattern that contains a diverse mix of residential and non-residential land T5 MU areas are intended to be among the most intense areas in Davidson County. T5 MU areas include some of Nashville's major employment centers such as Midtown that represent several sectors of the economy including health care, finance, retail, the music industry, and lodging. T5 MU areas also include locations that are planned to evolve to a similar form and function.

COMMUNITY PLAN COMPLIANCE

The proposed development will provide commercial and transitional land uses to the nearby residential land uses. Access within the overall development is designed to be pedestrian friendly with crosswalks and sidewalks to provide safe interaction between pedestrian and vehicular traffic. The commercial building is oriented towards the street with building forms that compliment the adjacent neighborhoods. Lighting will be provided throughout the development to provide safety at buildings and vehicular and pedestrian areas while enhancing the character of the center.

TRANSPORTATION DEMAND MANAGEMENT PROGRAM

- This development will strive to implement TDM best practices. These goals will include limiting delivery times will be restricted to non-peak hours, informational kiosks with wayfinding finding to nearby SOV options as well as to encourage future tenants to stagger work hours, provide carpooling and offer to pay a percentage of employees transit services costs.
- Centrally located bike storage will be provided to the future tenants of the building and will include lockers and cages for their equipment. Changing rooms and showers will be located within the amenity facilities of the development for safe use by the tenants.
- Due to the addition of multiple bike stations in surrounding development, a ride share partner is not established for this site. Instead, 20 bike racks will be centrally located within the development for use by the general public.

BL2018-1091 Conditions of Approval

1. Façade treatment of parking structures shall be designed to integrate and complement the architecture of the habitable portions of the building and the surrounding context of the built environment. Openings for natural ventilation must be integrated into a cohesive building façade design.
2. Architectural cladding and façade treatments as described above shall be required on parking structure facades visible from public streets and public open spaces at the time of permitting. This shall include building facades, and portions thereof, that do not front a public street but are visible from them.
3. Façade treatment shall turn the corner alongside property lines a minimum of 20 feet.
4. Parking structure façade treatments and cladding shall be designed to block light bleed from the garage and car headlights at night.
5. The location of exterior public bicycle parking and interior tenant bicycle storage shall be identified on the Final SP plans.
6. The applicant shall coordinate with Metro Planning and Public Works to prepare a Transportation Demand Management plan incorporating applicable demand management strategies applicable to future owners or managers of the property. The plan shall be submitted for evaluation with the Final SP.
7. The applicant shall coordinate with Metro Planning and Public Works to develop a plan for two-way major protected bike lanes on 21st Avenue South from West End Avenue to Broadway, as identified in the WalknBike plan. The design will reduce the number of travel lanes from three to two, using the existing curb space to add two-way protected bike lanes adjacent to Vanderbilt campus. The design shall also include bicycle signals at the West End Avenue and Broadway intersections.
8. Comply with all conditions of Metro Public Works and Traffic and Parking.
9. The Preliminary SP plan is the site plan and associated documents. If applicable, remove all notes and references that indicate that the site plan is illustrative, conceptual, etc.
10. The requirements of the Metro Fire Marshal's Office for emergency vehicle access and adequate water supply for fire protection must be met prior to the issuance of any building permits.

CONDITIONS OF APPROVAL LIST

SEE C3.1 CIVIL NOTES SHEET.

INDEX OF SHEETS

SHEET DESCRIPTION
C0.0 COVER SHEET

CIVIL PLANS

C0.1 CIVIL NOTES AND DETAILS FOR EXCAVATION
C0.2 EXISTING CONDITIONS & DEMOLITION PLAN
C1.1 INITIAL EROSION CONTROL PLAN
C2.1 EXCAVATION GRADING, DRAINAGE & EROSION CONTROL PLAN
C2.2 EXCAVATION FINAL EROSION CONTROL PLAN
C3.1 CIVIL NOTES FOR SITE WORK
C4.0 OVERALL SITE LAYOUT PLAN
15 C4.1 ENLARGED SITE LAYOUT PLAN
C4.2 VEHICLE MOVEMENT PLAN
C5.0 OVERALL SITE GRADING, DRAINAGE & EROSION CONTROL PLAN
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C6.0 SITE UTILITY PLAN
C6.1 PUBLIC UTILITY PROFILE PLANS
C7.1 CONSTRUCTION DETAILS
C7.2 CONSTRUCTION DETAILS
C7.3 NES DETAILS
C7.4 NES NOTES

LANDSCAPE PLANS

L1.00 LANDSCAPE PLAN
L1.10 AMENITY LANDSCAPE PLAN

ARCHITECTURAL PLANS

X020 RENDERINGS
X021 RENDERINGS
DD-AG201 AREA PLAN LEVEL 01
A2B1 LEVEL B1 - PARKING FLOOR PLAN
A2B2 LEVEL B2 - PARKING FLOOR PLAN
A2B2M LEVEL B2M - PARKING FLOOR PLAN
A201 LEVEL 01 - 19TH AVE FLOOR PLAN
A201M LEVEL 01M - CHET AVE FLOOR PLAN
A202 LEVEL 02 - PARKING FLOOR PLAN
A203 LEVEL 03 - PARKING FLOOR PLAN
A205 LEVEL 04 - 05 TYP. PARKING FLOOR PLAN
A206 LEVEL 06 - PARKING FLOOR PLAN
A207 LEVEL 07 - PARKING FLOOR PLAN
A207M LEVEL 07M PARKING FLOOR PLAN
A211 LEVEL 11,13,15 TYP. OFFICE FLOOR PLAN
A301 EXTERIOR ELEVATION - EAST
A302 EXTERIOR ELEVATION - WEST
A303 EXTERIOR ELEVATION - NORTH
A304 EXTERIOR ELEVATION - SOUTH
A320 BUILDING SECTIONS
A321 BUILDING SECTIONS
A322 BUILDING SECTIONS
A323 BUILDING SECTIONS
A410 SYSTEM SHEET - RETAIL EAST
A411 SYSTEM SHEET - PORTE COCHERE
A412 SYSTEM SHEET - PORTE COCHERE
A414 SYSTEM SHEET - RETAIL SOUTH
A420 SYSTEM SHEET - GARAGE - FINS
A422 SYSTEM SHEET - SKY LOBBY EAST
A423 SYSTEM SHEET - AMENITY TERRACE

CONTACTS

OWNER/DEVELOPER
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CIVIL
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ARCHITECTURE
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NASHVILLE, TN 37201
(615) 770-8100

SWGR# 2019041013
BUILDING PERMIT# 2020005603
15 METRO CASE # 2017SP-095-005
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

Gresham Smith
222 Second Avenue South
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Nashville, TN 37201
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CONSULTANT:
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LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
Chattanooga 423-490-9400
Nashville 615-244-8591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17135-0970

CLIENT:
NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:
MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:
EVAN BLAKE FOSTER
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 120457
STATE OF TENNESSEE
09/09/2022

CONSTRUCTION DOCUMENTS

Revision

No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/MWS & QA/QC COMMENTS
9	05/27/20	PER MWS COMMENTS
10	06/02/20	PER MWS COMMENTS
11	10/08/21	PER MWS COMMENTS
12	11/15/21	PER NES COMMENTS
13	-----	PER MWS COMMENTS
14	05/20/22	PER NDOT COMMENTS
15	09/09/22	PER CITY COMMENTS

COVER SHEET

C0.0

PROJECT: 42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

G:\17135-0970\1-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970 COVER.DWG
PLOTTED BY BARAKA PATTERSON ON: 9/8/2022 2:38 PM LAST UPDATED BY BPATTERSON ON: 9/7/2022 2:09 PM

Drawn By: MRS
Checked By: EBF
Approved By: EBF

SITE GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES IN THE PROXIMITY OF THE CONSTRUCTION AREA AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL CODES AND OBTAIN ALL PERMITS PRIOR TO BEGINNING WORK.
3. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADES AND DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
4. DIMENSIONS ARE TO THE FACE OF CURB, EDGE OF CONCRETE AND FACE OF BUILDING UNLESS NOTED OTHERWISE.
5. PROPOSED BUILDING FOOTPRINT IS FOR GRAPHIC PURPOSES ONLY. CONTRACTOR SHALL USE THE CURRENT ARCHITECTURAL DRAWINGS FOR BUILDING STAKEOUT AND VERIFY THAT THERE ARE NO DISCREPANCIES WITH THESE PLANS.
6. AUTOCADD FILE TO BE PROVIDED FOR SPECIFIC COORDINATIONS.

SITE CONSTRUCTION NOTES

1. THE NECESSARY PERMITS FOR THE WORK SHOWN ON THESE SITE DEVELOPMENT PLANS WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK ON THIS PROJECT. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL FEES INVOLVED IN SECURING SAID PERMITS. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO THE CONSTRUCTION OF THE PROJECT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL BEAR ALL EXPENSES OF FIELD STAKING NECESSARY FOR SITE AND BUILDING LAYOUT. ALL LAYOUT SHALL BE PERFORMED IN ACCORDANCE WITH THE SITE LAYOUT PLAN.
3. THE LOCATION OF EXISTING PIPING AND UNDERGROUND UTILITIES, SUCH AS WATER AND GAS LINES, ELECTRICAL AND TELEPHONE CONDUITS, ETC., AS SHOWN ON THIS PORTION OF THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION BY ACTUAL SURVEYS, OR TAKEN FROM THE RECORDS AND DRAWINGS OF THE EXISTING UTILITIES. HOWEVER, THE CIVIL ENGINEER DOES NOT ASSUME RESPONSIBILITY THAT, DURING CONSTRUCTION, THE POSSIBILITY OF UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED OR THAT ACTUAL LOCATION OF THOSE SHOWN MAY VARY SOMEWHAT FROM THE LOCATION DESIGNATED ON THIS PORTION OF THE PLANS. IN AREAS WHERE IT IS NECESSARY THAT THE EXACT LOCATIONS OF UNDERGROUND LINES BE KNOWN, THE CONTRACTOR SHALL, AT THIS OWN EXPENSE, FURNISH ALL LABOR AND TOOLS TO EITHER VERIFY AND SUBSTANTIATE OR DEFINITIVELY ESTABLISH THE LOCATION OF THE LINES.
4. THE CONTRACTOR MUST UNDERSTAND THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SAME IS ACCEPTED AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY BY THE OWNER. THEREFORE, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK, INCLUDING BARRICADES, WARNING SIGNS, AND LIGHTS.
5. THE SITE DEVELOPMENT PORTION OF THIS PROJECT WILL BE SUBJECT TO THE INSPECTION AND FINAL APPROVAL OF THE LOCAL PLANNING, CODES, WATER AND SEWER DEPARTMENTS (AND/OR UTILITY DISTRICTS), ENGINEERING/PUBLIC WORKS DEPARTMENTS AND FIRE MARSHAL'S OFFICE.
6. IF, DURING THE CONSTRUCTION OF THE SITE DEVELOPMENT PORTION OF THIS PROJECT, A QUESTION OF INTENT OR CLARITY ARISES FROM EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR WILL IMMEDIATELY BRING THE MATTER TO THE ATTENTION OF THE CIVIL ENGINEER OR OWNER'S REPRESENTATIVE FOR RESOLUTION BEFORE THE AFFECTED WORK ITEMS ARE INITIATED OR PURSUED FURTHER.
7. THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND/OR UNDERGROUND POWER LINES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF THE ABOVE-NOTED LINES, THE ELECTRIC AND/OR TELEPHONE COMPANIES SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. THE CONTRACTOR SHOULD MAKE A THOROUGH EXAMINATION OF THE OVERHEAD LINES IN THE PROJECT AREA PRIOR TO THE INITIATION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
9. ELEVATION OF THE CURB AND GUTTER IS THE RESPONSIBILITY OF THE CONTRACTOR BUT ONCE IN PLACE MUST FUNCTION AS DESIGNED. CURB AND GUTTER INSTALLED WILL BE TESTED TO VERIFY FLOW TO THE STORM DRAIN SYSTEM. NO POOLING OF DRAINAGE IN THE ROADWAY WILL BE ACCEPTED.
10. ALL OF THE PUBLIC SIDEWALK ALONG THE ROADWAY MUST FOLLOW THE GRADE OF THE ROADWAY AND WILL NOT BE ADJUSTED TO MEET PRIVATE SIDEWALK CONNECTIONS. THE ADJUSTMENTS MUST BE MADE OUT OF THE RIGHT OF WAY.

BLASTING NOTES:

1. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPERINTENDENCE, TRANSPORTATION, SERVICES AND OPERATIONS TO COMPLETE THE BLASTING OPERATION.
2. ALL BLASTING SHALL BE DONE IN ACCORDANCE WITH THE TENNESSEE BLASTING STANDARDS ACT OF 1975, METROPOLITAN NASHVILLE AND ANY OTHER FEDERAL STATE OR LOCAL LAWS GOVERNING BLASTING.
3. THE CONTRACTOR SHALL HAVE A REGISTRATION CERTIFICATE AND EACH EMPLOYEE ENGAGED IN THE BLASTING ACTIVITY SHALL CARRY A VALID IDENTIFICATION CARD ISSUED BY THE DIVISION OF FIRE PROTECTION.
4. THE CONTRACTOR SHALL PERMIT ONLY AUTHORIZED AND QUALIFIED PERSONS TO HANDLE AND USE EXPLOSIVES.
5. ALL EXPLOSIVES SHALL BE ACCOUNTED FOR AT ALL TIMES WITH THE BLASTER RESPONSIBLE FOR MAINTAINING A DAILY LOG. EXPLOSIVES NOT BEING USED SHALL BE KEPT IN A LOCKED MAGAZINE UNAVAILABLE TO PERSONS NOT AUTHORIZED TO HANDLE THEM. THE CONTRACTOR SHALL MAINTAIN AN INVENTORY AND USE RECORD OF ALL EXPLOSIVES. APPROPRIATE AUTHORITIES SHALL BE NOTIFIED OF ANY LOSS, THEFT OR UNAUTHORIZED ENTRY INTO A MAGAZINE. ALL EXPLOSIVES AND RELATED MATERIALS SHALL BE STORED IN APPROVED MAGAZINES. BLASTING CAPS SHALL NOT BE STORED IN THE SAME MAGAZINE WITH OTHER EXPLOSIVES OR BLASTING AGENTS.
6. ORIGINAL CONTAINERS OR APPROVED MAGAZINES SHALL BE USED FOR TAKING DETONATORS AND OTHER EXPLOSIVES FROM STORAGE AREA TO THE BLASTING AREA. DELIVERY AND USE OF EXPLOSIVES SHALL ONLY BE MADE BY AND T AUTHORIZED PERSONS INTO APPROVED MAGAZINES.
7. CONTRACTOR SHALL USE EVERY REASONABLE PRECAUTION, INCLUDING, BUT NOT LIMITED TO, VISUAL AND AUDIBLE WARNING SIGNALS, FLAGS OR BARRICADES TO ENSURE EMPLOYEE AND PEDESTRIAN SAFETY.
8. DUE PRECAUTION SHALL BE TAKEN TO PREVENT ACCIDENTAL DISCHARGE OF ELECTRIC BLASTING CAPS FROM CURRENT INDUCED BY RADAR, RADIO TRANSMITTERS, LIGHTNING, ADJACENT POWER LINES, DUST STORMS, OR OTHER SOURCES OF EXTRANEOUS ELECTRICITY, THESE PRECAUTIONS SHALL INCLUDE THE PROMINENT DISPLAY OF ADEQUATE SIGNS ON ROADS WITHIN 1000 FEET OF BLASTING OPERATIONS WARNING AGAINST THE USE OF MOBILE RADIO TRANSMITTERS.
9. BLASTING OPERATIONS IN THE PROXIMITY OF OVERHEAD POWER LINES, COMMUNICATION LINES, UTILITY SERVICES, OR OTHER SERVICES AND STRUCTURES SHALL NOT BE CARRIED ON UNTIL THE UTILITY OPERATORS AND/OR OWNERS HAVE BEEN NOTIFIED AND SAFE CONTROL MEASURES HAVE BEEN TAKEN.
10. THE USE OF BLACK POWDER SHALL BE PROHIBITED.
11. ALL BLASTS SHALL BE FIRED ELECTRICALLY WITH ON-ELECTRICAL BLASTING MACHINE OR PROPERLY DESIGNED ELECTRIC POWER SOURCE.
12. ALL DRILL HOLES SHALL BE SUFFICIENTLY LARGE TO ADMIT FREELY THE INSERTION OF THE CARTRIDGES OF EXPLOSIVES. TAMPING SHALL BE DONE ONLY WITH WOOD RODS OR PLASTIC TAMPING POLES WITHOUT EXPOSED METAL PARTS.
13. NO HOLES SHALL BE LOADED EXCEPT THOSE TO BE FIRED IN THE NEXT ROUND OF BLASTING AFTER LOADING, ALL REMAINING EXPLOSIVES AND DETONATORS SHALL BE IMMEDIATELY RETURNED TO AN AUTHORIZED MAGAZINE.
14. NO LOADED HOLES SHALL BE LEFT UNATTENDED OR UNPROTECTED.
15. IMMEDIATELY AFTER BLASTING, THE FIRING LINE SHALL BE DISCONNECTED FROM THE BLASTING MACHINE. AN INSPECTION OF THE AREA SHALL BE MADE BY THE BLASTER TO DETERMINE IF ALL CHARGES HAVE BEEN EXPLODED BEFORE EMPLOYEES ARE ALLOWED TO RETURN TO THE AREA OR TO RESUME. IF A MISFIRE IS FOUND, NO OTHER WORK SHALL BE DONE EXCEPT THAT NECESSARY TO REMOVE THE HAZARD OF THE MISFIRE.
16. NO EXPLOSIVE OR BLASTING AGENTS SHALL BE LEFT UNATTENDED AT THE BLAST SITE.
17. ALL BLASTING OPERATIONS SHALL TAKE PLACE BETWEEN SUN-UP AND SUN-DOWN (HOURS OF DAYLIGHT ONLY).
18. ALL BLASTING SHALL BE DESIGNED TO PREVENT FLYING ROCK. THE CONTRACTOR SHALL USE ADEQUATE, GOOD QUALITY STEMMING MATERIAL AND THE COVERING OF BLASTS WITH STEEL OR RUBBER BLASTING MATS OR AN ADEQUATE DIRT COVER WILL BE REQUIRED.
19. THE CONTRACTOR, AT HIS OWN EXPENSE, MAY OPT TO HAVE PRE-BLAST SURVEYS PERFORMED ON ANY ADJACENT STRUCTURES. THESE SURVEYS SHALL BE PREFORMED BY A CONSULTANT EXPERIENCED IN THIS AREA.
20. THE CONTRACTOR HEREBY ASSUMES SOLE RESPONSIBILITY FOR ALL PERSONAL INJURY OR DAMAGE TO REAL OR PERSONAL PROPERTY, OR INTERFERENCE WITH THE USE OR ENJOYMENT OF ANY PROPERTY BY REASON OF BLASTING OR THE RESULTING VIBRATION OR CONCUSSION. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR OPERATING ALL EQUIPMENT AND PERFORMING ALL BLASTING IN CONFORMANCE WITH FEDERAL, STATE OR LOCAL LAWS AND REGULATIONS DESCRIBED BY ANY OTHER GOVERNMENTAL AUTHORITY LIMITING THE AMOUNT OF VIBRATION OR CONCUSSION. NOTHING PRESENTED IN ANY OF THE PRECEDING IN ANY WAY RELIEVES THE CONTRACTOR OF ANY RESPONSIBILITIES FOR ANY DAMAGE TO THE EXISTING STRUCTURES OR UTILITIES IN THE AREA OF BLASTING.
21. NO BLASTING TO BE DONE WITHIN 25' OF FINISHED WATER OR SEWER LINE.
22. USE ALL PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM DANGER FROM FROM OPERATIONS.

SITE GRADING NOTES

1. EROSION CONTROL SEDIMENT BARRIERS AND TREE PROTECTION BARRIER SHALL BE INSTALLED PRIOR BEGINNING SITE WORK.
2. NO HEAVY EQUIPMENT SHALL CROSS OR BE STORED OUTSIDE THE LIMITS OF CONSTRUCTION, WITHIN TREE PROTECTIONS ZONES, OR UNDER THE DRIP LINE OF EXISTING TREES TO REMAIN.
3. TOPSOIL STRIPPED FROM AREAS TO BE GRADED SHALL BE STOCKPILED ON SITE IN A LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE. DRAINAGE SHALL BE ROUTED AROUND STOCKPILE LOCATIONS FOR THE DURATION OF GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT LOSS OF TOPSOIL MATERIAL.
4. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT.
5. ALL CUT AND FILL SHALL BE PERFORMED UNDER THE DIRECTION/OBSERVATION OF THE GEOTECHNICAL ENGINEER.
6. THE SUITABLITY OF SOILS FOR FILL MATERIAL SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
7. UNLESS DIRECTED OTHERWISE BY GEOTECHNICAL ENGINEER, ALL FILL AREAS SHALL BE RAISED IN LIFTS NOT EXCEEDING 8" IN THICKNESS. THE RELATIVE COMPACTION OF EACH LAYER SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) IN ALL AREAS OF FILL WITHIN OPEN AREAS AND 98% OF SAME SPECIFICATION FOR AREAS UNDER ROADS, PARKING, SIDEWALKS, BUILDING SLABS, AND FOUNDATIONS.
8. ALL GRADING SHALL BE COMPLETED TO THE GRADES INDICATED WITHIN THESE PLANS. FINAL GRADES SHALL PROVIDE PROPER DRAINAGE AND PREVENT STANDING WATER.

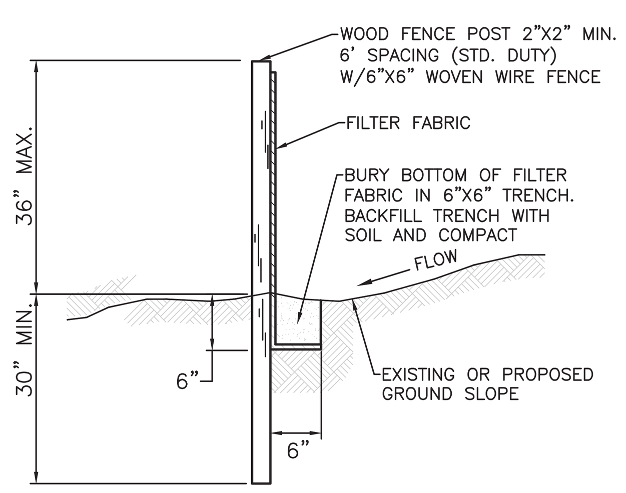
DEMOLITION NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO REMOVE ALL EXCAVATED MATERIALS AND SUCH ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ALL ITEMS SHALL BE PROPERLY DISPOSED OF AT AN OFF-SITE LOCATION. THE CONTRACTOR SHALL OUTLINE ANY AND ALL POSSIBLE HAUL ROUTES AND SHALL BE PREPARED TO SUBMIT SUCH TO THE LOCAL JURISDICTION PUBLIC WORKS DEPARTMENT, THE CIVIL ENGINEER AND OTHER AUTHORITIES FOR APPROVAL.
2. IF, AT ANY TIME, PRIOR TO OR DURING THE DEMOLITION WORK, HAZARDOUS MATERIAL IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND APPROPRIATE GOVERNMENTAL AGENCY.
3. THE CONTRACTOR SHALL NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE OR DISRUPTION. SUCH OPERATIONS SHALL BE CONDUCTED BY THE CONTRACTOR WITH MINIMUM INTERFERENCE TO ADJACENT OWNERS. ADJACENT EGRESS AND ACCESS SHALL BE PROPERLY MAINTAINED AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ANY ROADWAYS, PARKING OR SIDEWALKS WITHOUT PERMISSION FROM THE ADJACENT OWNERS OR THE LOCAL JURISDICTION PUBLIC WORKS DEPARTMENT.
4. PRIOR TO THE COMMENCEMENT OF DEMOLITION/GRADING OPERATIONS, ALL OVERHEAD AND UNDERGROUND UTILITIES SHALL BE LOCATED. ALL REMOVAL AND/OR RELOCATION OF UTILITIES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANIES.
5. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER OR AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER.
6. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITIES PRIOR TO SUBMITTING HIS BID TO DETERMINE THE EXTENT TO WHICH UTILITY DISCONNECTIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF THE WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR WILL RECEIVE NO ADDITIONAL COMPENSATION FOR DELAYS OR INCONVENIENCE CAUSED BY THE UTILITY ADJUSTMENT.

EROSION PREVENTION AND SEDIMENT CONTROLS

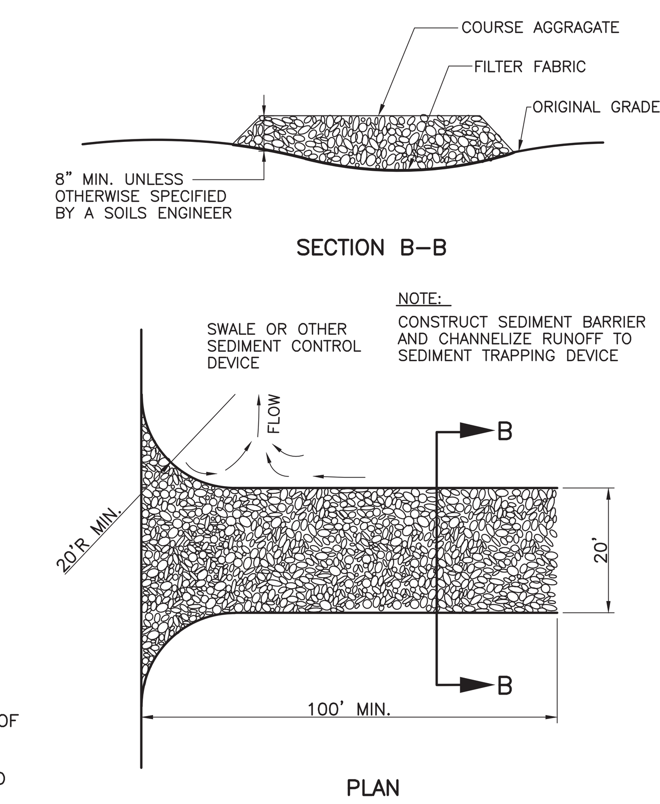
DESIGN, INSPECTION, AND MAINTENANCE OF BMPS DESCRIBED AND SHOWN ON THESE PLANS SHALL BE CONSISTENT OR EXCEED RECOMMENDATIONS CONTAINED IN THE CURRENT EDITION OF TDEC'S TENNESSEE EROSION CONTROL HANDBOOK.

1. ALL CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TDEC AND LOCAL STANDARDS.
2. BMP CAPACITY [SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS, AND OTHER SEDIMENT CONTROL] SHALL NOT BE REDUCED BY MORE THAN 50% AT ANY GIVEN TIME. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL HAS BEEN USED INAPPROPRIATELY OR INCORRECTLY, THE CONTRACTOR MUST REPLACE OR MODIFY THE CONTROL FOR RELEVANT SITE SITUATIONS.
3. WHERE PERMANENT OR TEMPORARY VEGETATION COVER IS USED AS A CONTROL MEASURE, THE TIMING OF THE PLANTING IS CRITICAL. PLANNING FOR PLANTING OF VEGETATION COVER DURING WINTER OR DRY MONTHS SHOULD BE AVOIDED.
4. IF SEDIMENT ESCAPES THE PERMITTED AREA, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. THE CONTRACTOR SHALL NOT INITIATE REMEDIATION/RESTORATION OF A STREAM WITHOUT CONSULTING THE DIVISION FIRST. THE NOI GENERAL PERMIT DOES NOT AUTHORIZE ACCESS TO PRIVATE PROPERTY. ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED BY THE CONTRACTOR AND ADJOINING LANDOWNER.
5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER SHALL BE PICKED UP PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF OF THE SITE BY WIND OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHOULD BE REMOVED OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGE.
6. ERODIBLE MATERIAL STORAGE AREAS (INCLUDING OVERBURDEN AND STOCKPILES OF SOIL) AND BORROW PITS ARE CONSIDERED PART OF THE SITE AND SHOULD BE ADDRESSED WITH APPROPRIATE BMP'S ACCORDINGLY.
7. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED, OR DISTURBED MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS STABILIZED. CONTRACTOR SHALL SEQUENCE EVENTS TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS. CLEARING AND GRUBBING SHALL BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION. EXISTING VEGETATION AT THE SITE SHOULD BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE.
8. EPSC MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE MOVING OPERATIONS BEGIN AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKADAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
9. THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE OR A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS. CONTRACTOR SHALL MAINTAIN A RAIN GAUGE AND DAILY RAINFALL RECORDS AT THE SITE, OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
10. A COPY OF THE SWPPP SHALL BE RETAINED ON-SITE AND SHOULD BE ACCESSIBLE TO THE DIRECTOR AND THE PUBLIC. ONCE SITE IS INACTIVE OR DOES NOT HAVE AN ONSITE LOCATION ADEQUATE TO STORE THE SWPPP, THE LOCATION OF THE SWPPP, ALONG WITH A CONTACT PHONE NUMBER, SHALL BE POSTED ON-SITE. IF THE SWPPP IS LOCATED OFF-SITE, REASONABLE LOCAL ACCESS TO THE PLAN, DURING NORMAL WORKING HOURS, MUST BE PROVIDED.
11. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO A CONSTRUCTION SITE) SHALL BE CONSTRUCTED AS NEEDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
12. INSPECTIONS MUST BE PERFORMED AT LEAST TWICE EVERY CALENDAR WEEK. INSPECTIONS SHALL BE PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTIONS OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS OR DUE TO EXTREME DROUGHT, SUCH INSPECTION HAS TO BE CONDUCTED ONCE PER MONTH UNTIL THAWING OR PRECIPITATION RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITIES RESUMES. INSPECTION REQUIREMENT DO NOT APPLY TO DEFINABLE AREAS THAT HAVE BEEN FINALLY STABILIZED, AS DESIGNED BY THE ENGINEER. WRITTEN NOTIFICATION OF THE INTENT TO CHANGE THE INSPECTION FREQUENCY AND THE JUSTIFICATION FOR SUCH REQUEST MUST BE SUBMITTED TO THE LOCAL ENVIRONMENTAL FIELD OFFICE, OR THE DIVISION'S NASHVILLE CENTRAL OFFICE FOR PROJECTS OF TDOT OR TVA. SHOULD THE DIVISION DISCOVER THAT MONTHLY INSPECTION OF THE DIVISION DISCOVER THAT MONTHLY INSPECTIONS OF THE SITE ARE NOT APPROPRIATE DUE TO INSUFFICIENT STABILIZATION MEASURES OR OTHERWISE, TWICE WEEKLY INSPECTIONS SHALL RESUME. THE DIVISION MAY INSPECT THE SITE TO CONFIRM OR DENY THE NOTIFICATION TO CONDUCT MONTHLY INSPECTIONS.
13. INSPECTORS PERFORMING THE REQUIRED TWICE WEEKLY INSPECTIONS MUST HAVE AN ACTIVE CERTIFICATION AND A RECORD OF CERTIFICATION MUST BE KEPT ON SITE. BASED ON THE RESULTS OF THE INSPECTION, ANY INADEQUATE CONTROL MEASURES OR CONTROL MEASURES IN DESPAIR SHALL BE REPLACED OR MODIFIED, OR REPAIRED AS NECESSARY, BEFORE THE NEXT RAIN EVENT, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE NEED IDENTIFIED.
14. OUTFALL POINTS SHALL BE INSPECTED TO DETERMINE WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.

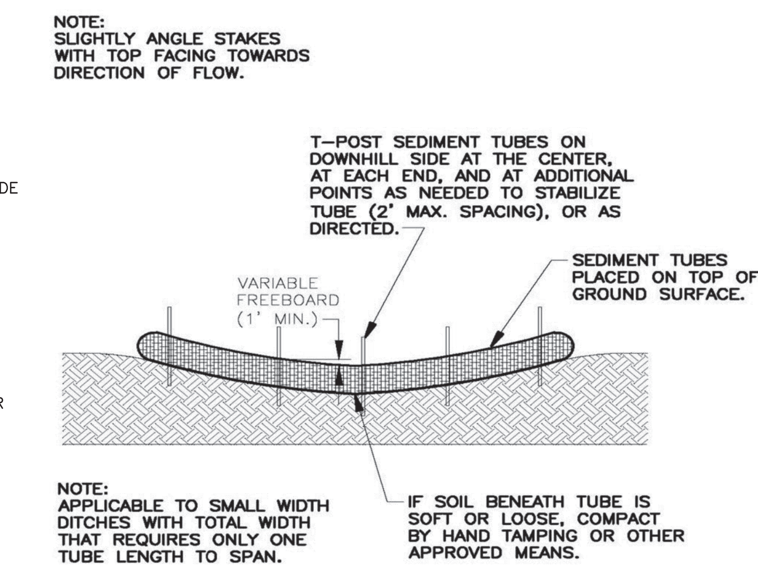


TO BE INSTALLED AS NOTED ON PLAN BEFORE COMMENCING GRADING OPERATION AND LEFT IN PLACE UNTIL A GOOD STAND OF GRASS IS ESTABLISHED OVER ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONFIRM WITH THE PUBLIC WORKS DEPT. THAT THIS DETAIL IS THE CURRENT AND APPROVED EROSION/SILTATION BARRIER.

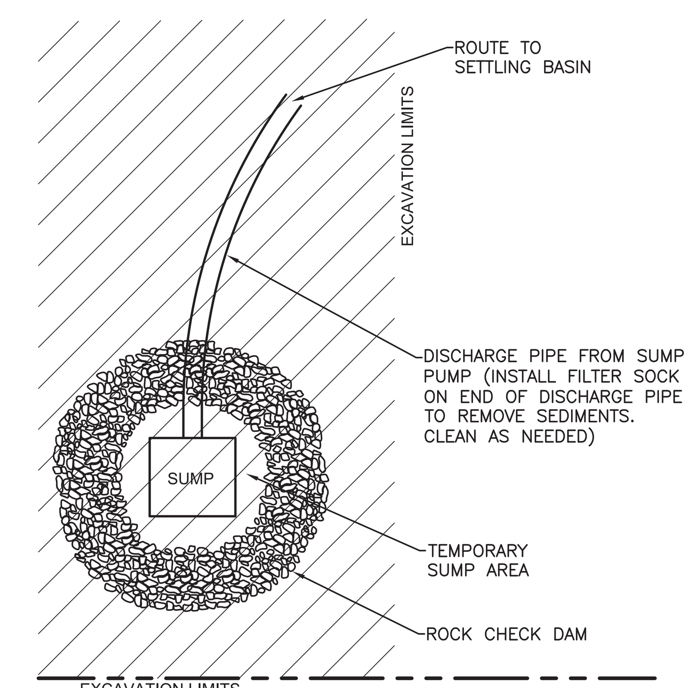
EROSION/SILTATION FENCE (TCP-13)
NOT TO SCALE



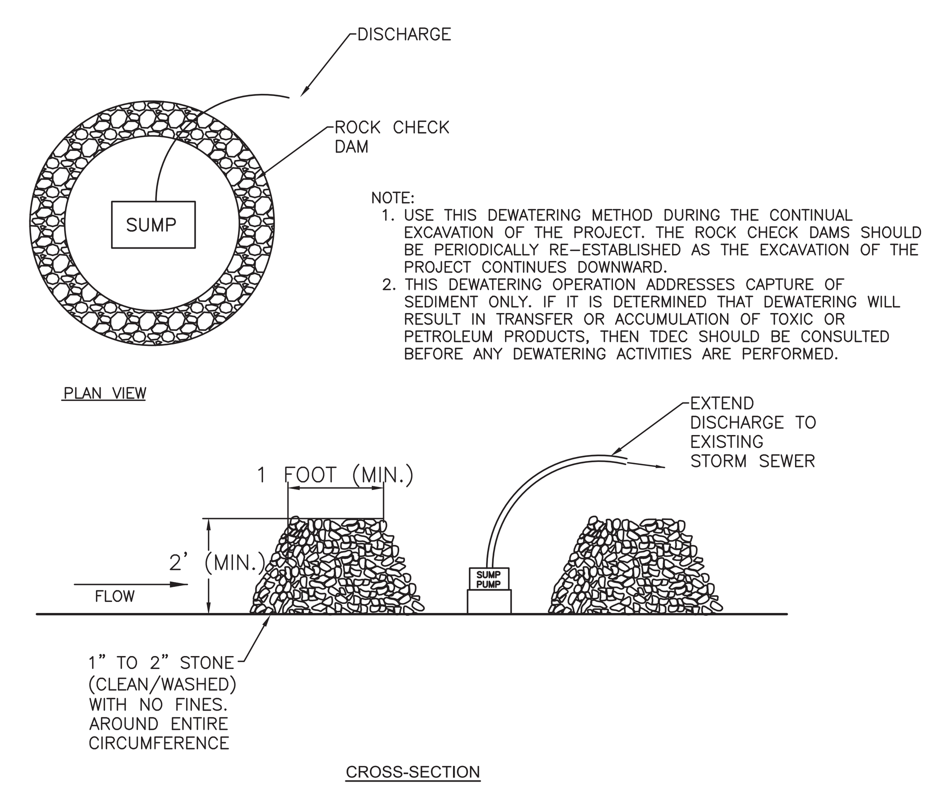
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE
METRO FIGURE TCP-03-1



WEIGHTED SEDIMENT TUBE
NOT TO SCALE



TEMPORARY SUMP - PLAN VIEW
NOT TO SCALE

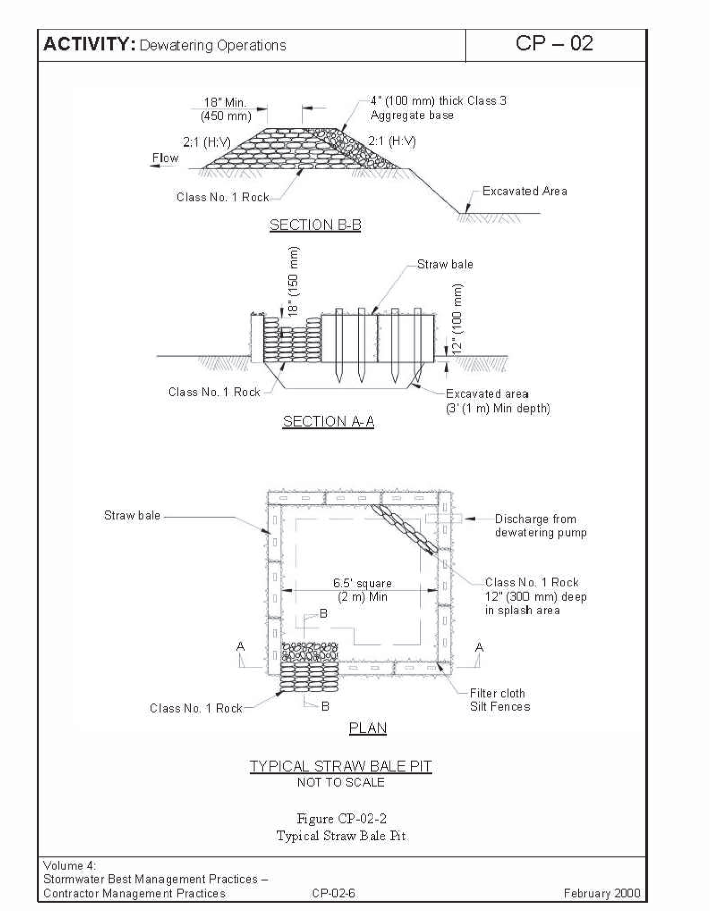


TEMPORARY SUMP AREA DEWATERING PIT
NOT TO SCALE

- Use the following formula to determine the minimum storage volume of the pit:

  Pump discharge (l/s) x 7.3 = m^3 of storage required.
  Note: 1 l/s = 0.001 m^3/s = 15.85 gpm.

- The excavated area should be a minimum of 3 ft (1 m) below the base of the straw bales and silt fence.
- Installation guidelines can be found under TCP-13: Silt Fences and TCP-14: Straw Bale Barrier.
- Once the water level nears the crest of stone weir (emergency overflow), shut off pump while the structure drains down to the top of the wet storage pit.
- The wet storage pit may be dewatered only after a minimum of 6 hours of sediment settling time. Pump effluent across a well-vegetated area or through a silt fence prior to discharge.
- Once the wet storage area becomes filled to one-half of the excavated depth, accumulated sediment shall be removed and properly disposed.



TYPICAL DEWATERING PRACTICE
NOT TO SCALE

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

Gresham Smith
222 Second Avenue South
Suite 1400
Nashville, TN 37201
615.770.8100

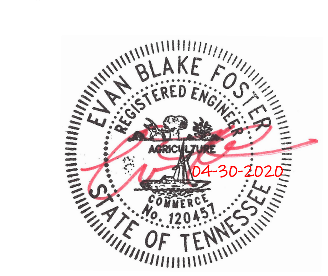
CONSULTANT:
RAGAN • SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
Chattanooga 423-490-9400
Nashville 615-244-8591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17135-0970

CLIENT:
NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:
MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:



CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS

CIVIL NOTES AND DETAILS FOR EXCAVATION

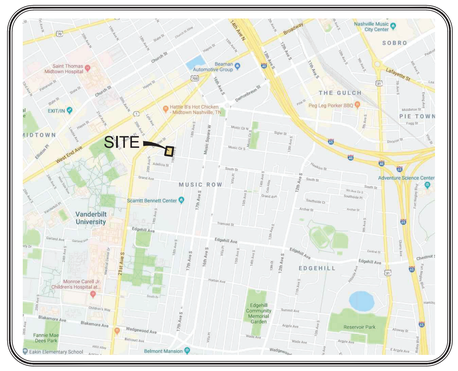
C0.1

PROJECT: 42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

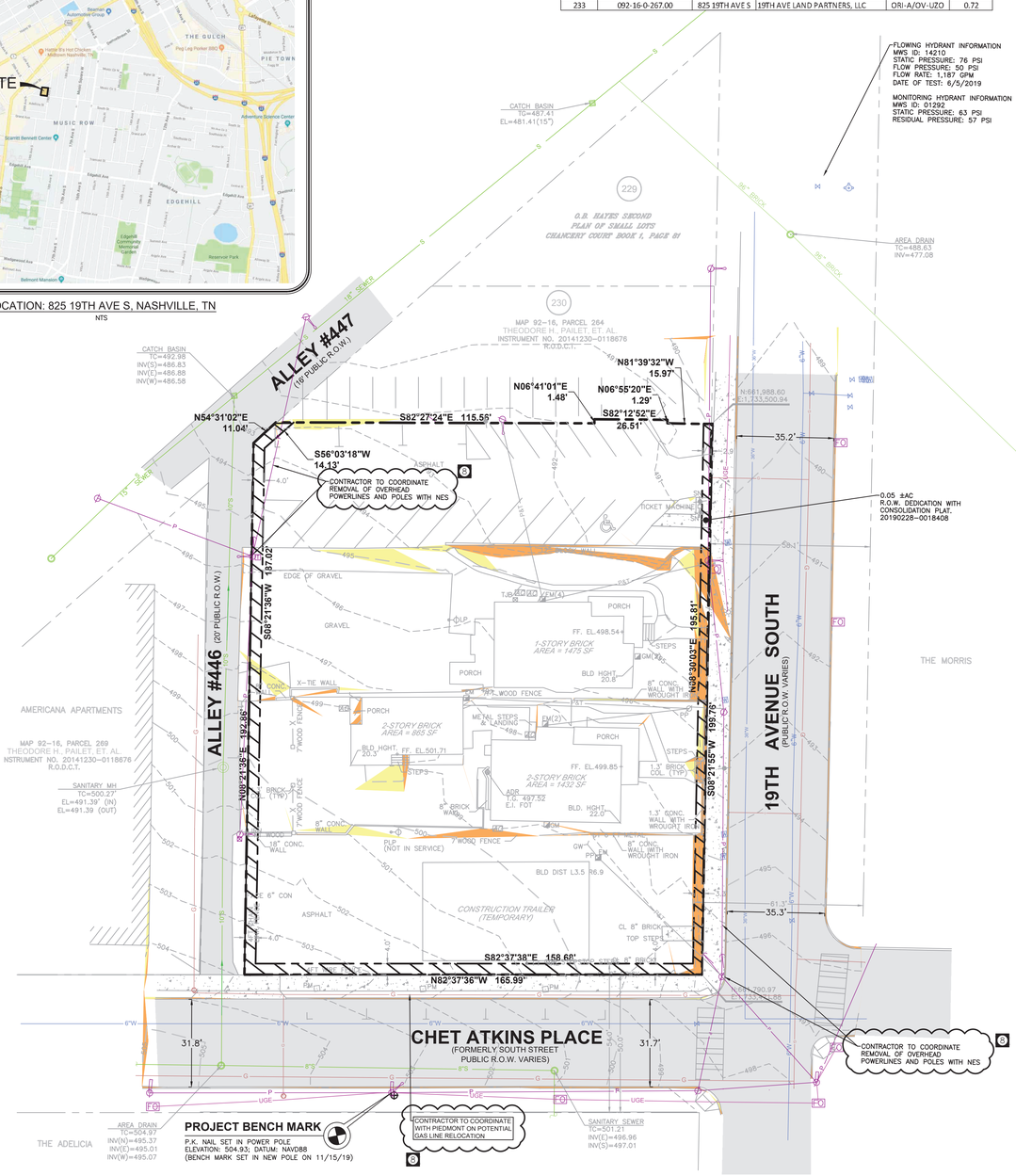
G:\17135-0970\1-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970 EXCAVATION NOTES.DWG
PLOTTED BY BARAKA PATTERSON ON: 4/30/2020 8:47 AM LAST UPDATED BY BPATTERSON ON: 2/20/2020 1:59 PM

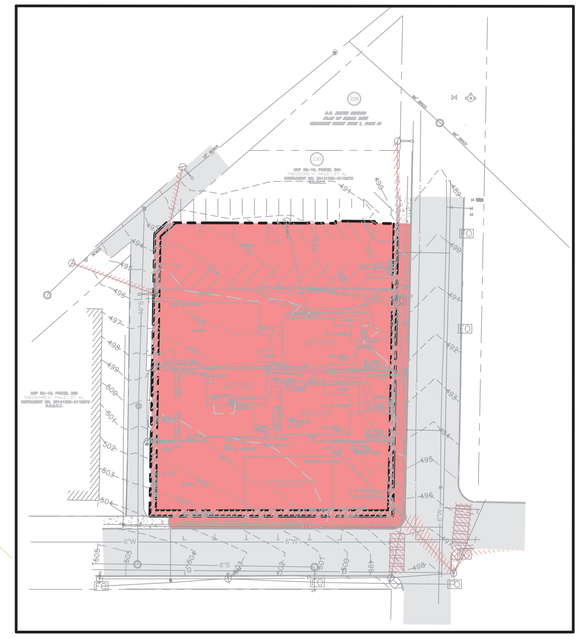
Drawn By: MRS
Checked By: EBF
Approved By: EBF



LOCATION: 825 19TH AVE S, NASHVILLE, TN
NTS

LOT	PARCEL ID	ADDRESS	OWNER	ZONING	AC
233	092-16-0-267.00	825 19TH AVE S	19TH AVE LAND PARTNERS, LLC	ORI-A/OV-UZO	0.72





DEMOLITION PLAN
SCALE: 1"=40'

NOTES:

1. SHADING DEPICTS AREAS WHERE ALL BUILDINGS, ASPHALT, CURBING, CONCRETE, STEPS, SIGNS, WALLS AND TREES ARE TO BE DEMOLISHED AND REMOVED.

LEGEND

IR(O)	IRON ROD (OLD)		UTILITY POLE
IR(N)	IRON ROD (NEW) (5/8" x 18" W/CAP STAMPED "RAGAN SMITH & ASSOCIATES")		UTILITY POLE W/ ANCHOR
	WATER VALVE		GAS VALVE
	WATER METER		GAS METER
	SANITARY SEWER MANHOLE		TELEPHONE RISER
CO	SEWER CLEAN-OUT		CABLE TV BOX
E	ELECTRIC BOX	—P—	OVERHEAD ELECTRIC POWER LINE
P	TRANSFORMER PAD	—T—	OVERHEAD TELEPHONE LINE
	SIGN	—P&T—	OVERHEAD POWER AND TELEPHONE LINES
R.O.D.C.T.	REGISTER'S OFFICE FOR DAVIDSON COUNTY, TN	—S—	SANITARY SEWER LINE
	GUARDRAIL	—G—	GAS LINE
M.B.S.L.	MINIMUM BUILDING SETBACK LINE	—W—	WATER LINE
P.U.D.E.	PUBLIC UTILITY & DRAINAGE EASEMENT	—X—X—	FENCE
	CONCRETE SURFACE	RCP	REINFORCED CONCRETE PIPE
		CMP	CORRUGATED METAL PIPE
			ASPHALT SURFACE

EXISTING STRUCTURES NOTE:
ALL EXISTING STRUCTURES TO BE REMOVED FROM SITE.

25% > SLOPES

15 -20% SLOPES

Know what's below. Call before you dig.

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-6970\L-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\6970 EXISTING.DWG
PLOTTED BY: BARBARA PATTERSON ON: 4/30/2020 9:48 AM LAST UPDATED BY: BPATTERSON ON: 4/30/2020 7:38 AM

Gresham Smith

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Suite 1400
Nashville, TN 37201
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CONSULTANT:

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RSA PROJECT: 17135-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

EVAN BLAKE FOSTER
REGISTERED ENGINEER
No. 120435
STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/PWS & OMHC COMMENTS

EXISTING CONDITIONS & DEMOLITION PLAN

C0.2

PROJECT: 42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF

BEST MANAGEMENT PRACTICES (BMP):

Land clearing shall take place only in areas where active construction will begin within a reasonable amount of time. Land clearing during the rainy season shall be avoided in sensitive areas sush as steep slopes and buffers, if possible.

Any natural watercourse on site shall not be disturbed unless absolutely necessary.

Denuded areas, soil stockpiles, dikes, dams, channels, etc., are to be seeded and mulched. Areas and time of exposure of unprotected soils shall be kept to a maximum of 15 days. Such areas are to immediately receive seed and mulch stabilization following this time period. On steep slopes and channels, sod shall be fastened to the ground with wire staples or wood pegs. Where surface water cannot be diverted from flowing over the face of slopes, install a strip of heavy jute or plastic netting and fasten tight along the crown or top of the slope for extra protection against lifting and undercutting of sod.

Suitable barricades and guards shall be erected to prevent equipment or material from being placed on any planted area.

Plastic lining shall be used on all ditches and exposed surfaces when time does not permit the contractor to use seed and mulch for stabilization.

Slope and ditches that are constructed to final sub-grade or a portion of any slope or ditch that is constructed to sub-grade shall immediately receive topsoil and final stabilization. All slopes are to receive seed and mulch. All ditches shall receive stabilization as indicated on the construction plans. The contractor shall be responsible for watering seeded areas to prevent the soil from drying out until approved and accepted. The contractor shall be responsible for re-seeding bare spots for a period of one year after installation or acceptance of this project.

Steep and unstable slopes shall not be disturbed if they are outside of the approved grading plan area. Runoff shall be conveyed from the top of the slope in a safe manner ensuring that the slope is stabilized as soon as possible. All runoff exiting the construction site shall be free of excessive sediment, and other pollutants.

Erosion control barriers (silt fence) shall be placed where indicated prior to clearing, grubbing, grading. Erosion control barriers (silt fence) shall be adjusted and placed along the newly established contours until the development is stabilized (see erosion/siltation control notes)

Street and/or curb inlet protection devices shall be placed around all inlets upon the construction of the storm water sewer system.

EROSION/SILTATION CONTROL NOTES:

1. Areas and time of exposure of unprotected soils shall be kept to a minimum whenever possible.
2. Keep dust within tolerable limits by sprinkling or other acceptable means.
3. Use temporary vegetation and/or mulch to protect bare areas from erosion during construction.
4. No other work will be initiated on the project until the erosion/siltation measures shown on the plans and details are properly in place.
5. Silt fence shown thus is to be used as temporary sediment barriers. See detail for proper installation and maintenance SF
6. If, at any time during the construction phase of this project, the erosion/siltation measures installed fail to function properly, need maintenance or repair, or need new replacement in kind, the contractor will effect such actions as are needed to correct the situation at no additional cost to the owner.
7. Disturbed areas are to be graded to drain as indicated on plan to sediment barriers during and upon completion of construction.
8. All cut/fill areas to have a minimum of 6-inch depth topsoil cover. Areas dressed with topsoil will receive 12 pounds per 1000 square feet of 6-12-12 fertilizer, 5 pounds or more of Kentucky 31 fescue seed per 1000 square feet and a straw mulch of 70%-80% coverage (approximately 125 pounds per 1000 square feet) except as otherwise determined by plan.
9. Upon stabilization of the project site with a good (acceptable) stand of grass and/or ground cover, the erosion/siltation installations will be removed and the area disturbed will be seeded and mulched with the same treatment as other new grassed areas of the project.
10. Prior to the issuance of a grading permit, all erosion/siltation control measurements indicated on the plans shall be installed.
11. Erosion control barriers (silt fence) shall be placed where indicated prior to clearing, grubbing, grading, filling. Erosion control barriers (silt fence) shall be adjusted and placed along newly established contours as a result of the fill operations.
12. Inspection & maintenance of erosion control devices shall be performed on a regular basis.
13. Erosion control devices must be in place and inspected by metro Nashville stormwater department, prior to issuance of land disturbance permit.
14. Copies of the swppp and inspections shall be available on site.
15. During tree removal, silt fence is not to be removed.
16. Temporary or permanent stabilization shall be completed no later than 15 days (7 days for steep slopes) after construction activity in that portion of the site has temporarily or permanently ceased.

EROSION/SILTATION BARRIER MAINTENANCE:

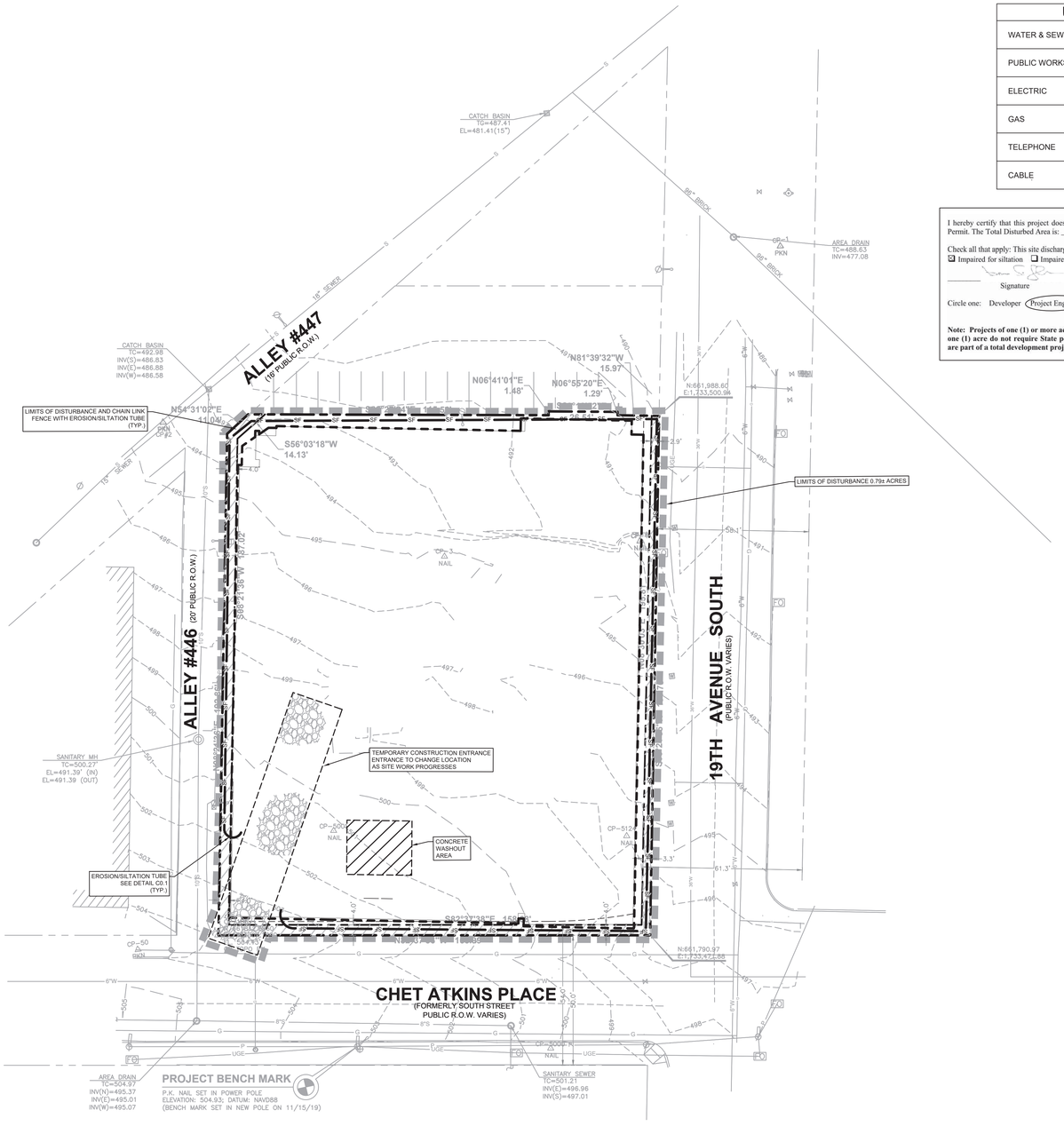
1. Erosion/siltation barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged barriers, end runs and undercutting beneath barriers.
3. Necessary repairs to barriers or replacement of barriers shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the erosion/siltation barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

CONCRETE WASHOUT NOTE

Contractor to provide an area for concrete wash down and equipment fueling in accordance with Metro CP-10 and CP-13, respectively. Contractor to coordinate exact location with NPDES department during preconstruction meeting. Grading permittee to include BMP's designed to control site wastes such as discarded building materials, chemicals, litter, and sanitary wastes that my cause adverse impacts to water quality. The location of and/or notes referring to said BMP's shall be shown on the EPSC plan.

NOTE

All perimeter EPSC measures must be in place before grading.



UTILITY CONTACTS

WATER & SEWER	METRO WATER AND SEWERAGE SERVICE (615) 862-4505
PUBLIC WORKS	METRO PUBLIC WORKS (615) 862-8700 PERMITS
ELECTRIC	NASHVILLE ELECTRIC SERVICE (615) 747-3945
GAS	PIEDMONT NATURAL GAS (615) 734-1753 LAMAR MORGAN
TELEPHONE	AT&T (615) 214-7337 DON CROHAN
CABLE	COMCAST (615) 244-7462

I hereby certify that this project does not require coverage under a Tennessee Construction General Permit. The Total Disturbed Area is: 0.79± acres.

Check all that apply: This site discharges into waters identified by TDEC as:
☑ Impaired for siltation ☐ Impaired for habitat alteration ☐ Exceptional

Signature Date 07/10/19

Circle one: Developer (Project Engineer) Other _____

Note: Projects of one (1) or more acres require State permit coverage, while projects of less than one (1) acre do not require State permit coverage. Also, projects of less than one (1) acre that are part of a total development project of one (1) or more acres require State permit coverage.

Know what's below. Call before you dig.

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-09701-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970 IECP.DWG
PLOTTED BY BARAK PATTERSON ON: 4/30/2020 8:49 AM LAST UPDATED BY BPATTERSON ON: 3/11/2020 10:22 AM

Gresham Smith

222 Second Avenue South
Suite 1400
Nashville, TN 37201
615.770.8100

CONSULTANT:

RAGAN•SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
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Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0970

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

Revision

No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS

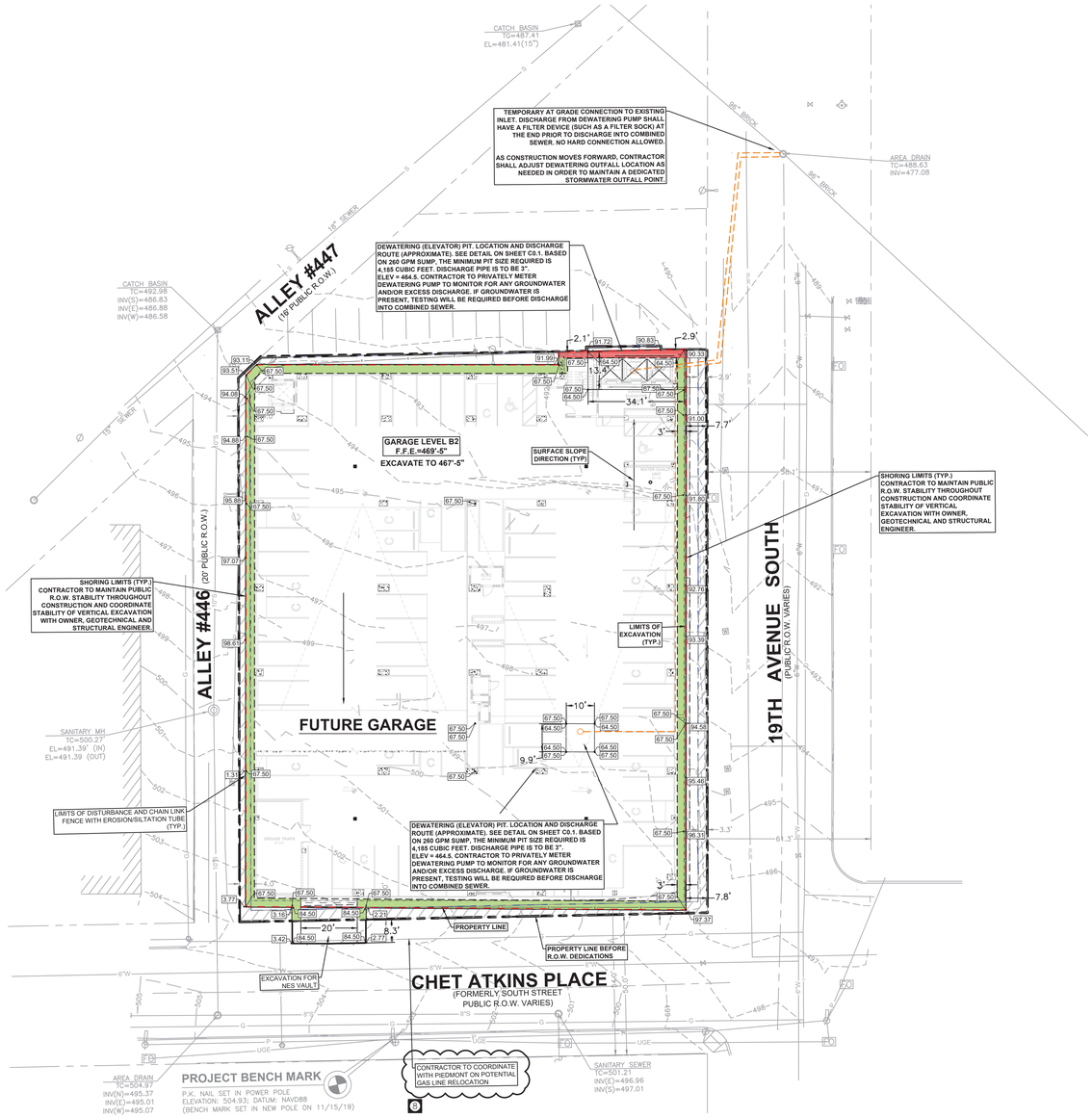
INITIAL EROSION CONTROL PLAN

C1.1

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISIONMUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS
- BIORETENTION/RAINGARDEN AREAS

THE ENGINEER SHALL VISIT WWW.NASHVILLE.GOV/STORMWATER/ASBUILT.HTM FOR SUBMITTAL REQUIREMENTS.

DEWATERING NOTES:

1. USE THE FOLLOWING FORMULA TO DETERMINE THE MINIMUM STORAGE VOLUME OF THE PIT:

   PUMP DISCHARGE (l/s) x 7.3 = m^3 OF STORAGE REQUIRED
   NOTE: 1 l/s = 0.001 m^3/s = 15.85 gpm

2. THE EXCAVATED AREA SHOULD BE A MINIMUM OF 3ft (1m) BELOW THE BASE OF THE ROCK CHECK DAM.
3. INSTALLATION GUIDELINES OF THE CHECK DAM CAN BE FOUND UNDER TCP-12: CHECK DAMS
4. ONCE THE WATER LEVEL NEARS THE CREST OF THE ROCK CHECK DAM, SHUT OFF THE PUMP WHILE THE STRUCTURE DRAINS DOWN TO THE TOP OF THE WET STORAGE PIT.
5. THE WET STORAGE PIT MAY BE DEWATERED ONLY AFTER A MINIMUM OF 6 HOURS OF SEDIMENT SETTLING TIME. PUMP EFFLUENT THROUGH DISCHARGE PIPE WITH FILTER SOCK PRIOR TO AT-GRADE CONNECTION TO EXISTING INLET.
6. ONCE THE WET STORAGE AREA BECOMES FILLED TO ONE-HALF OF THE EXCAVATED DEPTH, ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED.
7. CONTRACTOR SHALL SLOPE LOWEST EXCAVATION SURFACE TO DEWATERING PIT AS NECESSARY TO AVOID EXCESSIVE PONDING
8. DEWATERING PUMP SIZES ARE BASED ON TDOT DETAIL EC-STR-1. CONTRACTOR TO MAKE ADJUSTMENTS OR ADD PUMPS AS NECESSARY IN ORDER TO MAINTAIN SUITABLE WORKING CONDITIONS.

NOTES:

1. BLASTING IS THE REQUESTED METHOD OF ROCK EXCAVATION FOR THIS PROJECT. BLASTING PLANS TO BE APPROVED BY METRO PRIOR TO EXCAVATION.
2. CONTRACTOR TO PROVIDE TEMPORARY SHORING DESIGNS TO MAINTAIN STABILITY OF ADJACENT GRADES AND ROADWAYS ALONG EACH SIDE OF EXCAVATION
3. ALL EXCAVATION GRADES SHOWN ARE 3.8' BELOW GARAGE FINISHED FLOOR (UNLESS NOTED OTHERWISE)
4. ALL GRADED AREA INCLUDING SLOPES SHALL BE STABILIZED DURING CONSTRUCTION. SEE CONTRACTORS SHORING PLANS FOR DETAILS.

3-FOOT GAP BETWEEN FACE OF FUTURE GARAGE WALL AND SHORING LIMITS

LESS THAN 3-FOOT GAP BETWEEN FACE OF FUTURE GARAGE WALL AND SHORING LIMITS (VARIES)

811 Know what's below. Call before you dig.

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-09701-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970 EXCAVATION.DWG
PLOTTED BY BARKER, PATTERSON ON: 4/30/2020 8:49 AM LAST OPENED BY BPATTERSON ON: 4/30/2020 7:39 AM

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RAGAN•SMITH
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LANDSCAPE ARCHITECTS • SURVEYORS
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Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/MWS & QN/QC COMMENTS

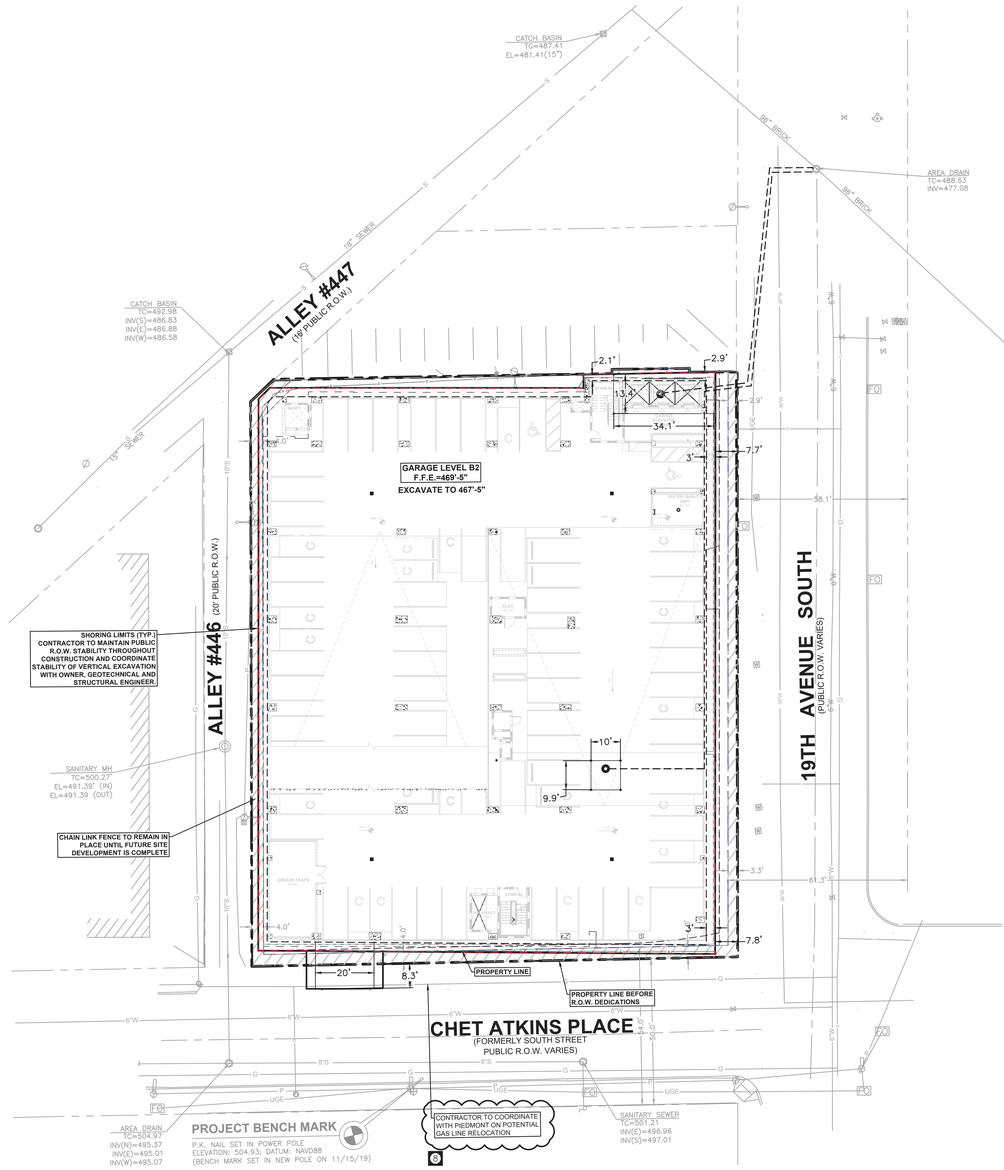
EXCAVATION GRADING, DRAINAGE & EROSION CONTROL PLAN

C2.1

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MBS
Checked By: EBF
Approved By: EBF



FINAL STABILIZATION:

UPON COMPLETION THE FOLLOWING METHODS SHALL BE USED AS FINAL STABILIZATION FOR EROSION CONTROL.

1. ALL TEMPORARY OR "DURING CONSTRUCTION" EROSION CONTROL MEASURES SHALL BE REMOVED. I.E. SILT FENCE, CONSTRUCTION ENTRANCE, INLET PROTECTION, EXCESSIVE RIPRAP, ETC.
2. SEDIMENT ACCUMULATION SHALL BE REMOVED FROM SEDIMENT POND, SWALES, DITCHES, INLETS, AND OUTFALLS.
3. SEDIMENT AND DEBRIS REMOVED SHALL BE DISPOSED OF PROPERLY. IF CONTAMINATION OF MATERIALS SUSPECTED, CONTACT TDEC OR LOCAL WASTE MANAGEMENT FOR PROPER DISPOSAL.
4. ALL AREAS OF EXPOSED SOILS SHALL RECEIVE SEED/STRAW, SODDING, EROSION CONTROL MATTING, AND/OR MULCH.
5. ALL SWALES AND DITCHES SHALL HAVE A HEALTHY STAND OF GRASS.
6. PERMANENT TURF REINFORCEMENT MATS AT OUTFALL POINTS SHALL BE LANDLOK 450 MATS OR EQUIVALENT

SHORING NOTE:

CONTRACTOR TO PROVIDE TEMPORARY SHORING DESIGNS TO MAINTAIN STABILITY OF ADJACENT GRADES AND ROADWAYS ALONG EACH SIDE OF EXCAVATION.

Know what's below. Call before you dig.

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

Gresham Smith

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Chattanooga 423-490-9400
Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:

19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

PLAN BLAKE LOSTER REGISTERED ENGINEER NO. 120431 STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/RWS & QA/QC COMMENTS.

EXCAVATION FINAL EROSION CONTROL PLAN

C2.2

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

G:\17135-0070\1-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\070 EXCAVATION.DWG
PLOTTED BY BARBARA PATTERSON ON: 4/30/2020 8:59 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 7:39 AM

Drawn By: MRS
Checked By: EBF
Approved By: EBF

SITE GENERAL NOTES

1. The contractor shall verify the location of all existing utilities in the proximity of the construction area and report any discrepancies to the owner's representative prior to beginning work.
2. The contractor shall conform to all local, state and federal codes and obtain all permits prior to beginning work.
3. The contractor shall check all finished grades and dimensions and report any discrepancies to the owner's representative prior to beginning work.
4. Dimensions are to the face of curb, edge of concrete and face of building unless noted otherwise.
5. Proposed building footprint is for graphic purposes only. Contractor shall use the current architectural drawings for building stakeout and verify that there are no discrepancies with these plans.
6. All traffic markings shall conform to the manual of uniform traffic control device (mutcd). All pavement marking shall be thermoplastic unless directed otherwise by the owner's representative.
7. All handicap ramps, parking spaces and accessible routes shall comply with the current ada requirements.
8. Exterior door landings shall be provided per the local building code. Contractor shall coordinate door locations and adjacent sidewalk/landing grades with these plans and report any discrepancies to the owner's representative.

SITE CONSTRUCTION NOTES

1. The necessary permits for the work shown on these site development plans will be obtained by the contractor prior to commencement of any work on this project. The contractor shall give all necessary notices and obtain all permits and pay all fees involved in securing said permits. He shall also comply with all city, county and state building laws, ordinances or regulations relating to the construction of the project.
2. The contractor shall be responsible for and shall bear all expenses of field staking necessary for site and building layout. All layout shall be performed in accordance with the site layout plan.
3. The location of existing piping and underground utilities, such as water and gas lines, electrical and telephone conduits, etc., as shown on this portion of the plans have been determined from the best available information by actual surveys, or taken from the records and drawings of the existing utilities. However, the civil engineer does not assume responsibility that, during construction, the possibility of utilities other than those shown may be encountered or that actual location of those shown may vary somewhat from the location designated on this portion of the plans. In areas where it is necessary that the exact locations of underground lines be known, the contractor shall, at this own expense, furnish all labor and tools to either verify and substantiate or definitively establish the location of the lines.
4. The contractor must understand that the work is entirely at his risk until same is accepted and he will be held responsible for its safety by the owner. Therefore, the contractor shall furnish and install all necessary temporary works for the protection of the work, including barricades, warning signs, and lights.
5. The site development portion of this project will be subject to the inspection and final approval of the local planning, codes, water and sewer departments (and/or utility districts), engineering/public works departments and fire marshal's office.
6. If, during the construction of the site development portion of this project, a question of intent or clarity arises from either the plans or specifications, the contractor will immediately bring the matter to the attention of the civil engineer or owner's representative for resolution before the affected work items are initiated or pursued further.
7. The contractor will exercise extreme caution in the use of equipment in and around overhead and/or underground power lines. If at any time in the pursuit of this work the contractor must work in close proximity of the above-noted lines, the electric and/or telephone companies shall be contacted prior to such work and the proper safety measures taken. The contractor should make a thorough examination of the overhead lines in the project area prior to the initiation of construction.
8. The contractor shall be responsible for any damage done to the premises or adjacent premises, or injuries to the public during the construction of the work, caused by himself, his subcontractors, or the carelessness of any of his employees.

DEMOLITION NOTES

1. The contractor will be required to remove all excavated materials and such items shall become the property of the contractor. All items shall be properly disposed of at an off-site location. The contractor shall outline any and all possible haul routes and shall be prepared to submit such to the local jurisdiction public works department, the civil engineer and other authorities for approval.
2. If, at any time, prior to or during the demolition work, hazardous material is encountered, the contractor shall notify the owner's representative and appropriate governmental agency.
3. The contractor shall notify adjacent owners of work that may affect their property, potential noise, utility outage or disruption. Such operations shall be conducted by the contractor with minimum interference to adjacent owners. Adjacent egress and access shall be properly maintained at all times. Do not close or obstruct any roadways, parking or sidewalks without permission from the adjacent owners or the local jurisdiction public works department.
4. Prior to the commencement of demolition/grading operations, all overhead and underground utilities shall be located. All removal and/or relocation of utilities shall be coordinated with the respective utility companies.
5. The contractor will provide all necessary protective measures to safeguard existing utilities from damage during construction of this project. In the event that special equipment is required to work over or around the utilities, the contractor will be required to furnish such equipment at no additional cost to owner.
6. The contractor will be solely responsible for contacting all affected utilities prior to submitting his bid to determine the extent to which utility disconnections and/or adjustments will have upon the schedule of the work for the project. Some utility facilities may need to be adjusted concurrently with the contractor's operations, while some work may be required 'around' utility facilities that will remain in place. It is understood and agreed that the contractor will receive no additional compensation for delays or inconvenience caused by the utility adjustment.

BLASTING NOTES:

1. Contractor shall provide all labor, materials, equipment, tools, superintendence, transportation, services and operations to complete the blasting operation.
2. All blasting shall be done in accordance with the Tennessee blasting standards act of 1975, metropolitan Nashville and any other federal state or local laws governing blasting.
3. The contractor shall have a registration certificate and each employee engaged in the blasting activity shall carry a valid identification card issued by the division of fire protection.
4. The contractor shall permit only authorized and qualified persons to handle and use explosives.

TREE PROTECTION NOTES

1. Any required excavation in or around the protection zone to accommodate underground services, footings, etc., shall be indicated on the plan, and shall be excavated by hand. In addition, related root pruning shall be accomplished by a certified arborist via ANSI A-300-95 standard so as to minimize impact of the general root system.
2. The storage of building materials or stockpiling shall not be permitted within the limits of or against the protection barriers.
3. Trees within the protection barriers must be adequately cared for throughout the construction process (i.e., they must be watered sufficiently, particularly if the tree's root system has been disturbed by excavation). Fill shall not be placed upon the root system in such a manner as to endanger the health or life of the affected tree.
4. Tree protection barrier shall be constructed prior to the issuance of any permits and shall remain intact throughout the entire period of construction.

EROSION PREVENTION AND SEDIMENT CONTROLS

1. All control measures must be properly installed and maintained in accordance with the manufacturer's specifications, TDEC and local standards.
2. Design, inspection, and maintenance of BMPs described and shown on these plans shall be consistent or exceed recommendations contained in the current edition of TDEC's Tennessee erosion control handbook.
3. BMP capacity [sediment traps, silt fences, sedimentation ponds, and other sediment control] shall not be reduced by more than 50% at any given time. if periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the contractor must replace or modify the control for relevant site situations.
4. Where permanent or temporary vegetation cover is used as a control measure, the timing of the planting is critical. planning for planting of vegetation cover during winter or dry months should be avoided.
5. If sediment escapes the permitted area, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. The contractor shall not initiate remediation/restoration of a stream without consulting the division first. The NOI general permit does not authorize access to private property. arrangements concerning removal of sediment on adjoining property must be settled by the contractor and adjoining landowner.
6. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events or before being carried off of the site by wind or otherwise prevented from becoming a pollutant source for storm water discharges. After use, materials used for EPSC should be removed or otherwise prevented from becoming a pollutant source for storm water discharge.
7. Erodible material storage areas (including overburden and stockpiles of soil) and borrow pits are considered part of the site and should be addressed with appropriate bmp's accordingly.
8. Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 15 days prior to grading or earth moving unless the area is stabilized. contractor shall sequence events to minimize the exposure time of graded or denuded areas. Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent practicable.
9. EPSC measures must be in place and functional before moving operations begin and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workaday, but must be replaced at the end of the workday.
10. The following records shall be maintained on or near site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease or a portion of the site; the dates when stabilization measures are initiated; inspection records and rainfall records. Contractor shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.
11. A copy of the SWPPP shall be retained on-site and should be accessible to the director and the public. Once site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located off-site, reasonable local access to the plan, during normal working hours, must be provided.
12. Off-site vehicle tracking of sediments and the generation of dust shall be minimized. A stabilized construction access (a point of entrance/exit to a construction site) shall be constructed as needed to reduce the tracking of mud and dirt onto public roads by construction vehicles.
13. Inspections must be performed at least twice every calendar week. Inspections shall be performed at least 72 hours apart. where sites or portions of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions or due to extreme drought, such inspection has to be conducted once per month until thawing or precipitation results in runoff or construction activities resumes. Inspection requirement do not apply to defirable areas that have been finally stabilized, as designed by the engineer. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the local environmental field office, or the division's Nashville central office for projects of TDOT or TVA. Should the division discover that monthly inspection of the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspections shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly inspections.
14. Inspectors performing the required twice weekly inspections must have an active certification and a record of certification must be kept on site. Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event, but in no case more than 7 days after the need identified.
15. Outfall points shall be inspected to determine whether EPSC measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

SITE GRADING & STORM DRAINAGE NOTES

1. Erosion control sediment barriers and tree protection barrier shall be installed prior beginning site work.
2. No heavy equipment shall cross or be stored outside the limits of construction, within tree protections zones, or under the drip line of existing trees to remain.
3. Topsoil stripped from areas to be graded shall be stockpiled on site in a location approved by the owner's representative. Drainage shall be routed around stockpile locations for the duration of grading operations. Erosion control measures shall be installed to prevent loss of topsoil material.
4. Prior to beginning construction, contractor shall review geotechnical report.
5. All cut and fill shall be performed under the direction/observation of the geotechnical engineer.
6. The suitability of soils for fill material shall be determined by the geotechnical engineer.
7. Unless directed otherwise by geotechnical engineer, all fill areas shall be raised in lifts not exceeding 8" in thickness. the relative compaction of each layer shall not be less than 95% of the standard proctor maximum dry density (ASTM D-698) in all areas of fill within open areas and 98% of same specification for areas under roads, parking, sidewalks, building slabs, and foundations.
8. All grading shall be completed to the grades indicated within these plans. final grades shall provide proper drainage and prevent standing water.
9. All storm drainage castings to be John Bouchard & Sons Co. or approved equal, unless otherwise noted.
10. All storm drainage pipes to be RCP, Class III, unless otherwise noted.
11. Installation of pipe material shall be placed with a screen stone envelope and when under pavement entire trench to be backfilled with screen stone to subgrade. Size of stone, envelopes, and trenches to be specified by municipalities for public lines and private lines to adhere to common practices for installation requirements.

SITE UTILITY NOTES

1. All materials and workmanship for utility lines and appurtenances shall be in strict compliance with the governing utility company and local codes. Prior to construction contractor shall notify utility company. (see utility contact information)
2. Contractor shall coordinate site electrical, gas, telephone, and cable with the respective utility company for service layout and design information. Any proposed layout of these utilities depicted on these drawings is graphical only and not intended to represent design of these utilities.
3. Prior to commencement of construction, contractor shall obtain all permits and pay any required tap and connection fees.
4. All trenching, pipe laying and backfilling shall be in accordance with federal OSHA regulations.
5. Site contractor shall construct all utility services to within 5' of building.
6. Contractor shall be responsible for coordinating the sequencing of construction for all utility lines to avoid conflicts.
7. Contractor shall coordinate size and location of water, sewer and stormwater connections to the building as depicted on the building mechanical plans and the site utility plan and notify the engineer or owner's representative of any discrepancies.
8. Water services lines ¾" - 3" shall be Type-K copper and 4" or larger shall be ductile iron pipe - Class 52 unless otherwise required by utility company.
9. Fire line installation and thrust blocking location and sizing shall be per N.F.P.A. and local fire department requirements.
10. Water meter manufacturer/model number and vault specifications shall be per the water utility company.
11. Backflow device (RPBP/DDCVA) manufacturer/model number shall be per the water utility company.
12. Contractor shall install hot box enclosure (pre-finished dark green) on all exterior above-ground backflow devices. Domestic and fire backflow devices shall be heated. Contractor shall coordinate providing appropriate electrical service to backflow device.
13. Contractor shall coordinate location of backflow device with the building mechanical drawings.
14. Sanitary sewer service lines shall be SDR 35 PVC unless specified otherwise.
15. Maintain a 10' horizontal and 18" vertical separation between sanitary sewer and water lines.
16. All fire line mains to be installed by licensed fire protection contractor.
17. Installation of pipe material shall be placed with a screen stone envelope and when under pavement entire trench to be backfilled with screen stone to subgrade. Size of stone, envelopes, and trenches to be specified by municipalities for public lines and private lines to adhere to common practices for installation requirements.

GEOTECHNICAL NOTE

1. A geotechnical study has been conducted on this site by PSI. PSI report dated October 27, 2017. If, in the pursuit of this work by the contractor, conditions or circumstances are encountered that are different than reflected in these plans or that appear to impact the scope of the work, the contractor will immediately notify the civil engineer, and the owner/developer before any remedial course of action or design change is initiated. All parties (owner, civil engineer, proper governmental agencies, and contractor) must be in agreement and the magnitude of the cost/time required for the measures established.

METRO AS-BUILT REQUIREMENTS

Metro has revised the as-built process and requirements as a part of the february 2016 regulations update. Please note that the following are required as a part of the as-built plan:

A. A certification letter from tn registered pe stating that the site has been inspected and that the stormwater management system and stormwater control measures (both structural and non-structural) are complete and functional in accordance with the plans approved by mws.

B. An as-built lid spreadsheet.

C. Hydrologic and hydraulic calculations for as-built conditions, as required.

D. As-built drawings showing final topographic features of all these facilities. This shall include invert elevations of outlet control structures.

E. Any deviations from the approved plans shall be noted on as-built drawings submitted.

F. Copy of as-built plan cad file on a cd and should be registered to the tn state plane coordinate system, north american datum 1983 (nad83). Data should be placed in separate layers and should be labeled / named for easy identification.

G. Cut and fill balance certification for floodplain and sinkhole alterations.

H. Water quality buffers shall be surveyed and included with the as-built submittal.

I. Any public (to become the responsibility of metro to maintain) stormwater infrastructure shall be video-inspected to verify proper installation with the video recording and any associated inspection report submitted as part of as-built record.

J. Additional testing may be required as/if warranted by video inspection.

RSA SPECIAL NOTES

PROJECT SPECIFIC NOTES

1. Contractor to adjust exiting utility castings as necessary.
2. Pavement dimensions shown are from edge of pavement to edge of pavement.
3. Driveways to be replaced with like materials to the tie down locations shown on plans. Any necessary paving of driveways will be done during paving operations on the main roadway.
4. The contractor shall make available soils test reports taken during and after the grading operation to show that the compaction requirements have been met. The cost of this report shall be borne by the contractor.

SURVEY INFORMATION

Boundary and Topographic information taken from a survey performed by Ragan Smith Associates, Inc. dated September 12, 2018

FINAL STABILIZATION NOTES

Upon completion the following methods shall be used as final stabilization for erosion control.

1. All temporary or "during construction" erosion control measures shall be removed. (i.e. silt fence, construction entrance, inlet protection, excessive riprap, etc.)
2. Sediment accumulation shall be removed from detention pond, swales, ditches, inlets, and outfalls.
3. Sediment and debris removed shall be disposed of properly. If contamination of materials suspected, contact tdec or local waste management for proper disposal.
4. All areas of exposed soils shall receive seed/straw, sodding, erosion control matting, and/or mulch.
5. All swales and ditches shall have a healthy stand of grass.
6. All outfalls shall possess an appropriate amount of riprap or other approve means to prevent scouring.

CONDITIONS OF APPROVAL

1. Fire Marshal conditions:
   - Limited building detail, and/ or building construction information provided. Any additional fire code or access issues will be addressed during the construction permitting process.

2. Public Works conditions:
   - Final constructions plans shall comply with the design regulations established by the Department of Public Works. Final design and improvements may vary based on actual field conditions. Following approval of final plans by MPW, a recorded copy of any ROW dedications and/or public easements will need to be submitted to MPW for bldg. permit approval.
   - Prior to building permit approval, submit waste/recycle hauler agreement, ref. SW1- 3(MPW waste disposal policy) for standards.
   - Comply with MPW traffic comments.

3. Traffic conditions:
   - Comply with TIS conditions
   - In accordance with Revised TIS, the developer shall construct the following roadway improvements. Dimensioned final site plans shall be submitted.
   - All site access drives should be designed to include a minimum of one entering lane and one exiting lane. The drive off Chet Atkins shall allow appropriate queue space for cars to store prior to gate opening. Gate equipment shall operate with little wait time. A denial lane shall be installed or free 10 min parking shall be allowed. Signs shall be posted so that cars do not back into Chet Atkins.
   - The site access driveway located off of 19th Avenue should widen on site to accommodate one valet lane and one through lane for entering vehicles. Valet storage should be maximized in order to prevent queueing onto 19th Avenue.
     Adequate valet staff shall be employed to allow the 19th Ave drive to operate appropriately with no valet or rideshare vehicles and delivery vehicles queuing on 19th Ave.
   - A daily service delivery area should be provided on site.
   - It should be noted that due to the deterioration in level of service on the Division Street approaches at the 19th Avenue South intersection, traffic signal control was not recommended for this study intersection. Furthermore, due to right-of-way restrictions along the study area roadways, additional turn lanes could not feasibly be added at the intersection in order to sufficiently improve the level of service for the northbound and southbound approaches.
   - The eastbound approach of Chet Atkins Place at the 19th Avenue South intersection should be striped with separate left turn and through/right turn lanes. The through/right turn lane should include a minimum of 100 feet of storage. Additionally, the existing parking on the north side of Chet Atkins Place should be removed within 100 feet of the stop line at the 19th Avenue South intersection. The approach restriping should include a new stop bar and a pedestrian crosswalk along Chet Atkins Place. Adequate LTL storage for Left turns into Garage shall be provided. Garage drive off Chet Atkins shall operate with 2 entering lanes in am pk hr.
   - Following six months of building occupancy, the intersection of 19th and Chet Atkins should be studied to determine if an all-way stop is warranted. If warranted, the all-way stop control should be provided at the intersection of 19th Avenue South and Chet Atkins Place. A 'Stop' sign (RI-1), stop bar, and pedestrian crosswalk should be provided on both the northbound and southbound approaches of 19th Avenue South to the intersection.
   - Loading/unloading traffic shall not be permitted on Chet Atkins Place.
   - Delivery times for the development should be restricted to non-peak hours, exclusively.
   - Tenants for the general office land use-s hall be encouraged to offer employees staggered work hours or an option to work remotely, as well as providing incentives for carpooling, biking, or using transit services. It should be noted that the developers plan to promote ride-sharing and offer to pay for a percentage of the costs for employees if they choose to use to transit services.

4. Water Services conditions:
   - As construction plans have been approved, and match the latest SP plan revision (stamped received 1/10/2020), MWS recommends approval, on the following condition:
   - Approval does not apply to private water and sewer line design. Plans for these must be submitted and approved through a separate review process with Metro Water Services (under review), before their construction may begin.

5. Planning conditions:
   - On the corrected copy, add the permitted uses statement to the cover sheet: "Uses of this SP shall be limited to a maximum of210,000 square feet of general office and a maximum of 26,000 square feet of all other non residential uses permitted by the ORI-A zoning district, Furniture Store, or Nanobrewery."
   - Since the final tenant mix was not confirmed with this final SP, Planning shall review all building permits, including tenant finish-outs, to ensure that the square footages of proposed uses are consistent with BL2018-1091. For each building permit application submitted to Metro Codes, applicant shall include a table documenting the existing and proposed square footage of each use.
   - Uses functioning as an amenity open only to the office tenants will be classified as part of the office use and counted towards the 210,000 square feet of general office. Uses functioning as a standalone business open to any member of the public may be classified as a separate use and counted towards the 26,000 square feet of all other non-office uses of the building.

6. The requirements of the Metro Fire Marshal's Office for emergency vehicle access and adequate water supply for fire protection must be met prior to the issuance of any building permits.

7. The final site plan as approved by the Planning Commission will be used by the Department of Codes Administration to determine compliance, both in the issuance of permits for construction and field inspection. Significant deviation from these plans may require reapproval by the Planning Commission and/or Metro Council.

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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Gresham Smith

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615.770.8100

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LANDSCAPE ARCHITECTS • SURVEYORS
Chattanooga 423-490-9400
Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

RYAN BLAKE FOX
REGISTERED ENGINEER
04-30-2020
NO. 120453
STATE OF TENNESSEE

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS

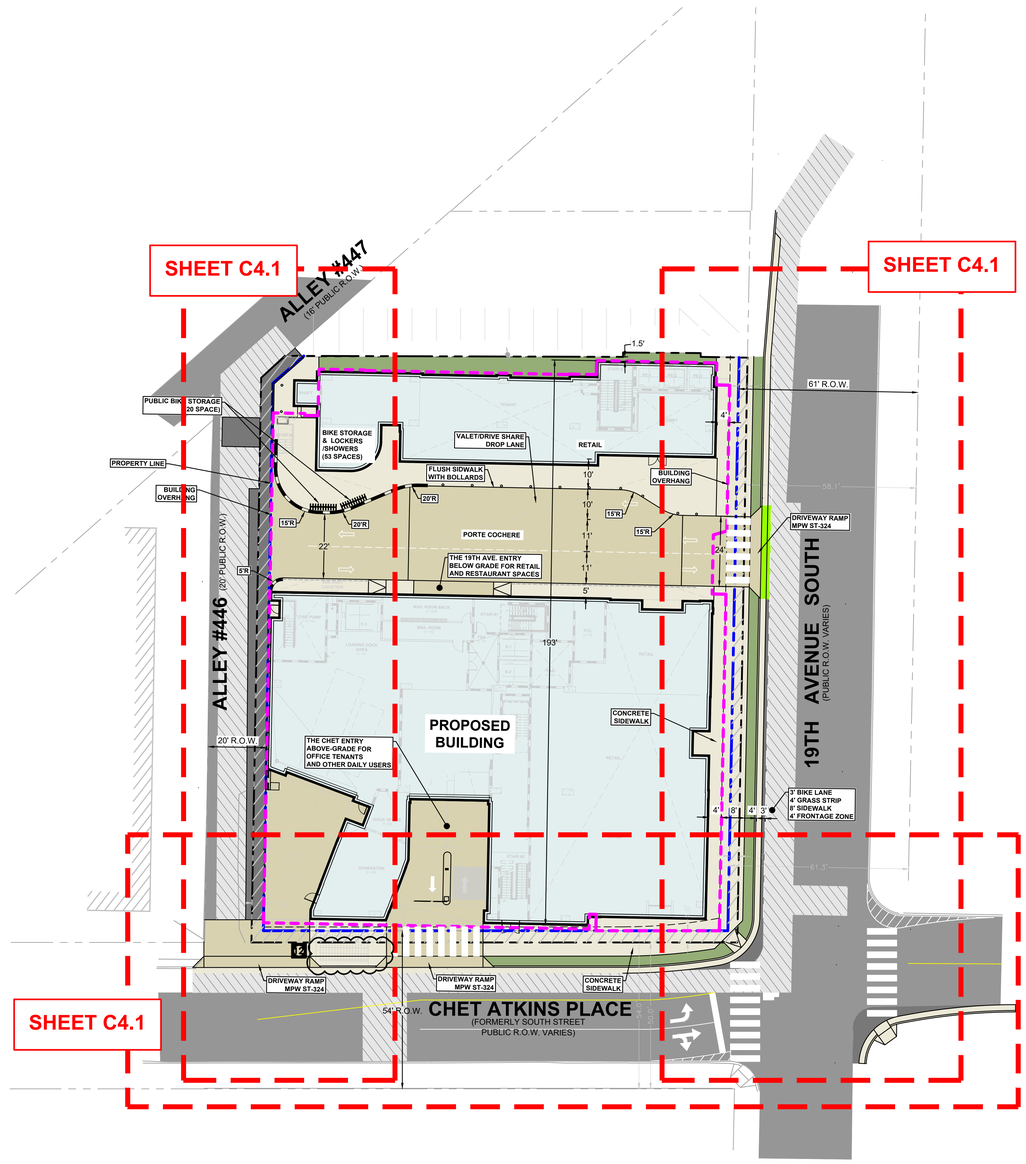
CIVIL NOTES FOR SITE WORK

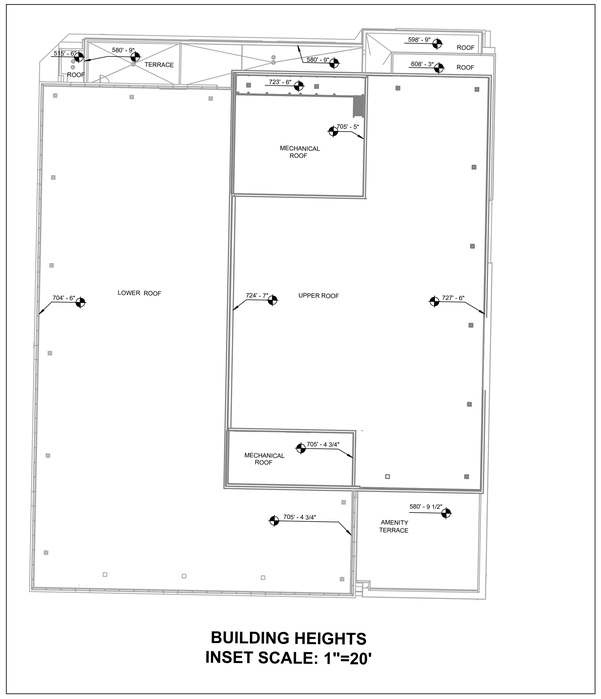
C3.1

PROJECT: 42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF





BUILDING HEIGHTS
INSET SCALE: 1"=20'

PER TIS RECOMMENDATIONS:
THE EASTBOUND APPROACH OF CHET ATKINS PLACE AT 19TH AVENUE SOUTH INTERSECTION SHOULD BE STRIPED WITH SEPARATE LEFT AND RIGHT (AND THROUGH) TURN LANES. THE RIGHT TURN LANE SHOULD INCLUDE A MINIMUM OF 100 FEET OF STORAGE. ADDITIONALLY, THE EXISTING PARKING ON THE NORTH SIDE OF CHET ATKINS PLACE SHOULD BE REMOVED WITHIN 100 FEET OF THE STOP LINE AT THE 19TH AVENUE SOUTH INTERSECTION. THE APPROACHING RESTRIPING SHOULD INCLUDE A NEW STOP BAR AND A PEDESTRIAN CROSSWALK ALONG CHET ATKINS PLACE.

NOTE

The final site plan/building permit site plan depicts the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.

PAVEMENT LEGEND

- R.O.W. DEDICATION WITH CONSOLIDATION PLAT. 20190228-0018408
- MILL OVERLAY ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE WALK
- GRASS/PLANTER AREA
- BUILDING OVERHANG
- RIGHT-OF-WAY

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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ragansmith.com
RSA PROJECT: 17135-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

EVAN BLAKE FOSTER
REGISTERED ENGINEER
No. 122457
STATE OF TENNESSEE

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/MWS & QA/QC COMMENTS
12	11/15/21	PER NES COMMENTS

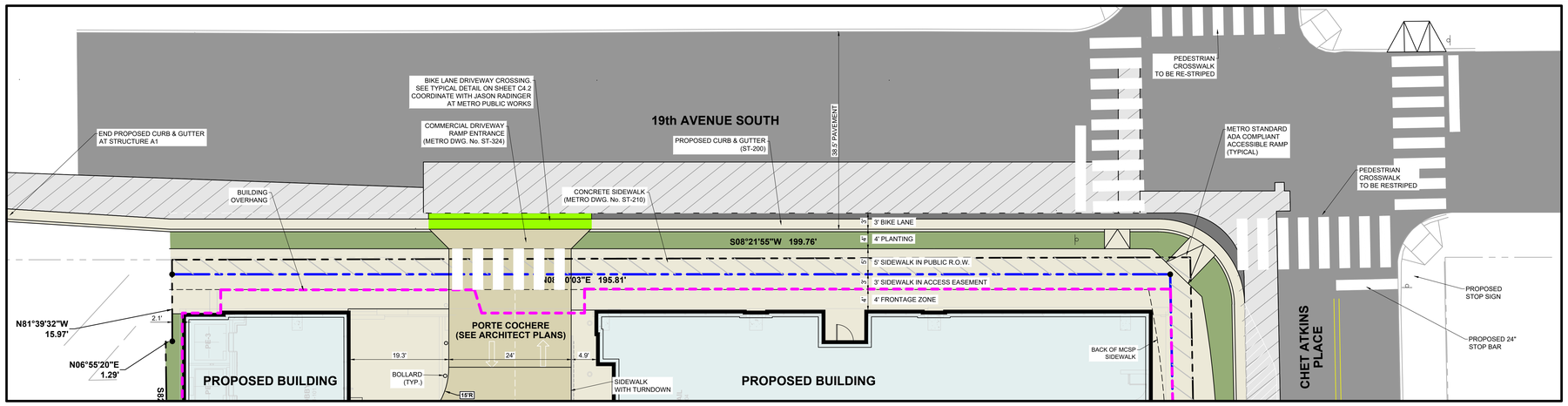
OVERALL SITE LAYOUT PLAN

C4.0

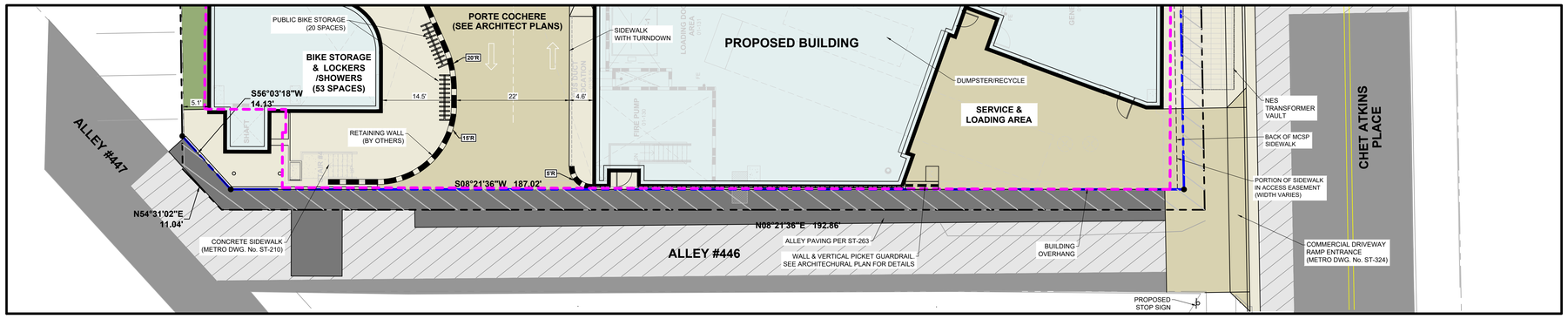
PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



19th AVENUE SOUTH



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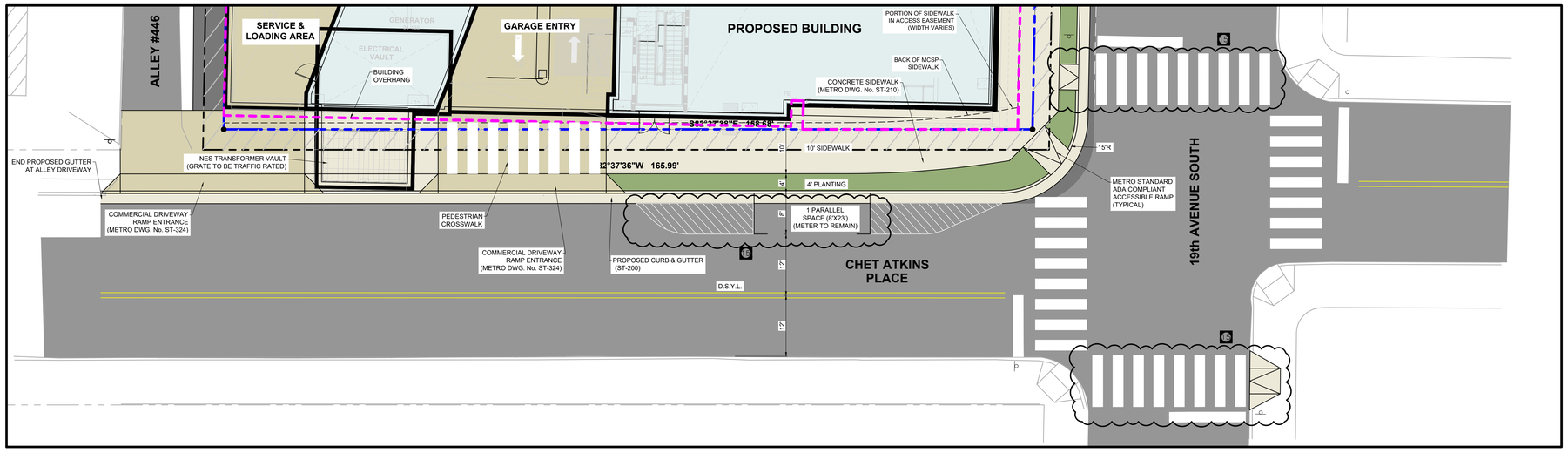
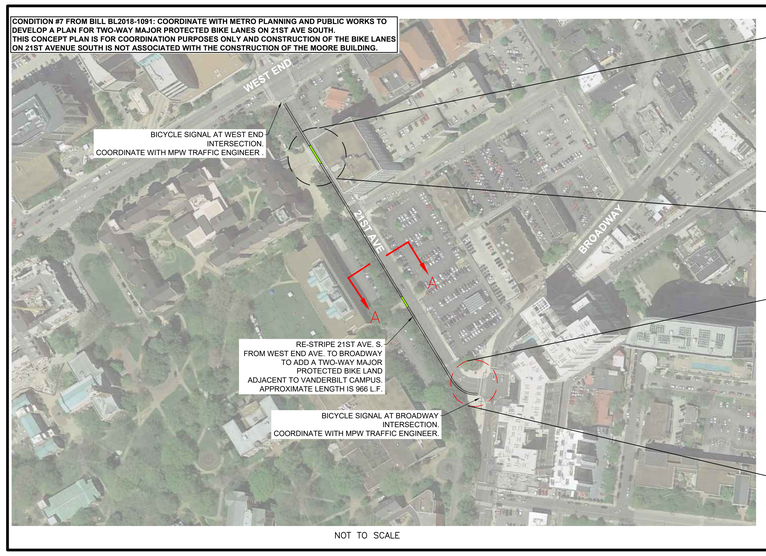


CHET ATKINS PLACE

CONDITION #7 FROM BILL BL2018-1091: COORDINATE WITH METRO PLANNING AND PUBLIC WORKS TO DEVELOP A PLAN FOR TWO-WAY MAJOR PROTECTED BIKE LANES ON 21ST AVE SOUTH. THIS CONCEPT PLAN IS FOR COORDINATION PURPOSES ONLY AND CONSTRUCTION OF THE BIKE LANES ON 21ST AVENUE SOUTH IS NOT ASSOCIATED WITH THE CONSTRUCTION OF THE MOORE BUILDING.



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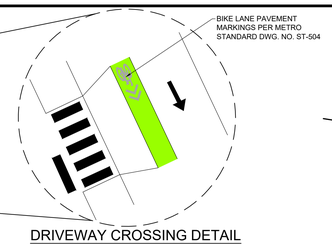

DRIVEWAY CROSSING DETAIL
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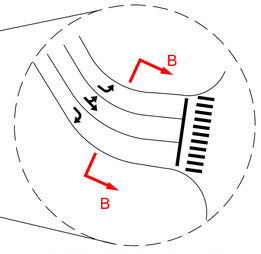

EXISTING TURNING LANE
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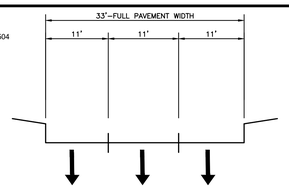
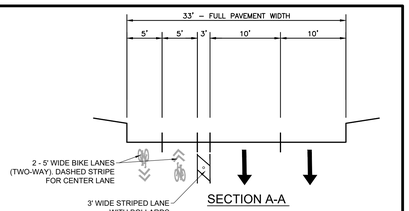


SECTION A-A
EXISTING LANES
(21ST AVE. SOUTH)
NOT TO SCALE



SECTION A-A
PROPOSED LANES
(21ST AVE. SOUTH)
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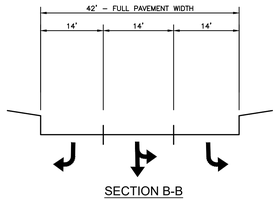
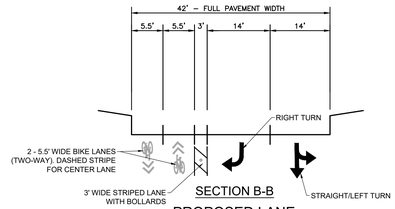


SECTION B-B
EXISTING LANE
NOT TO SCALE



SECTION B-B
PROPOSED LANE
NOT TO SCALE

PAVEMENT LEGEND

- R.O.W. DEDICATION WITH CONSOLIDATION PLAT. 20190229-0018408
- MILL OVERLAY ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE WALK
- GRASS/PLANTER AREA
- BUILDING OVERHANG
- RIGHT-OF-WAY

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-005
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:
NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:
MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:
RYAN BLAKE FOSTER
REGISTERED ENGINEER
No. 124845
STATE OF TENNESSEE

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/PWS & ON/OK COMMENTS
12	11/15/21	PER NES COMMENTS
14	05/20/22	PER NDOT COMMENTS
15	09/09/22	PER CITY COMMENTS

ENLARGED SITE LAYOUT PLAN

C4.1

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

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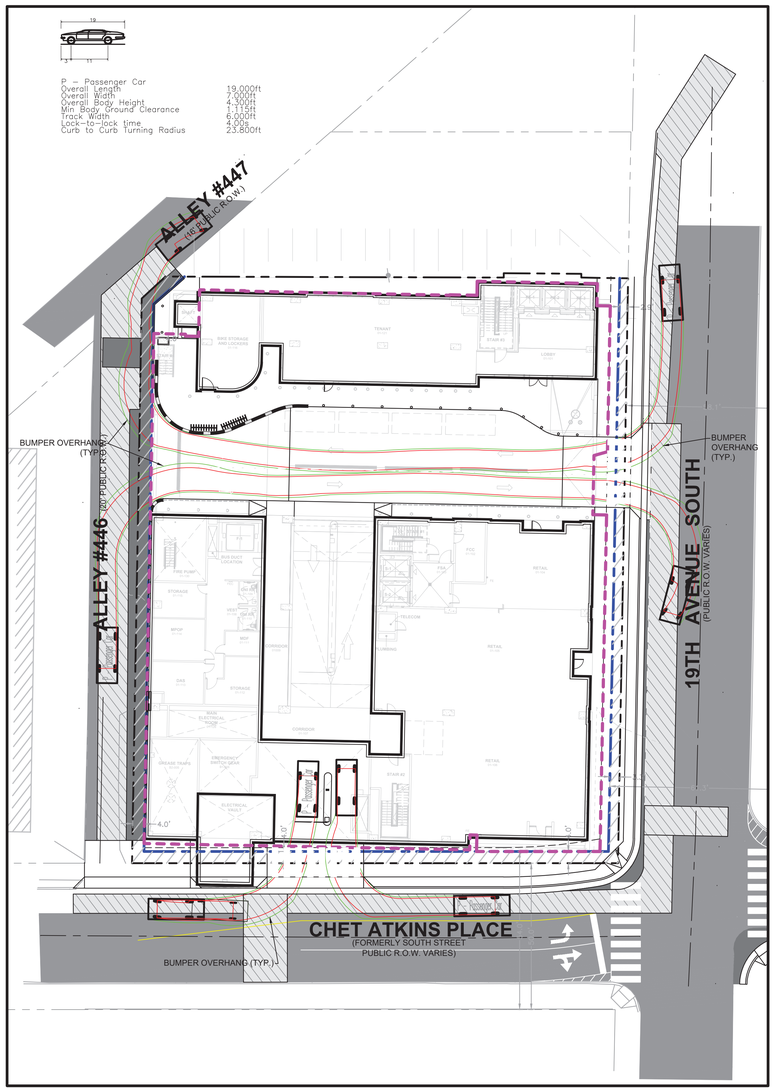
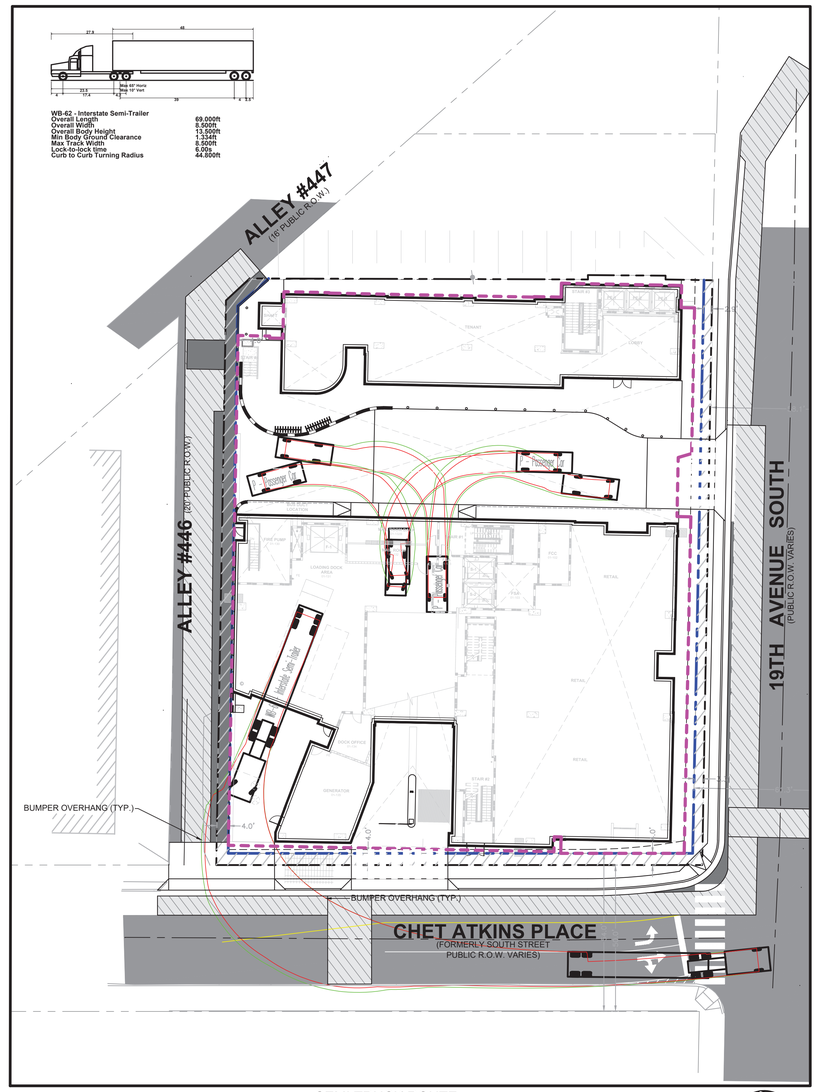
Drawn By: MRS
Checked By: EBF
Approved By: EBF



PASSENGER CAR MOVEMENTS

SCALE: 1"=20'



SEMI TRUCK ROUTE

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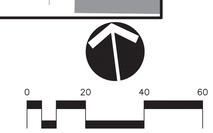

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0970

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

EVAN BLAKE FOSTER
REGISTERED ENGINEER
No. 120143
04-30-2020
STATE OF TENNESSEE

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS

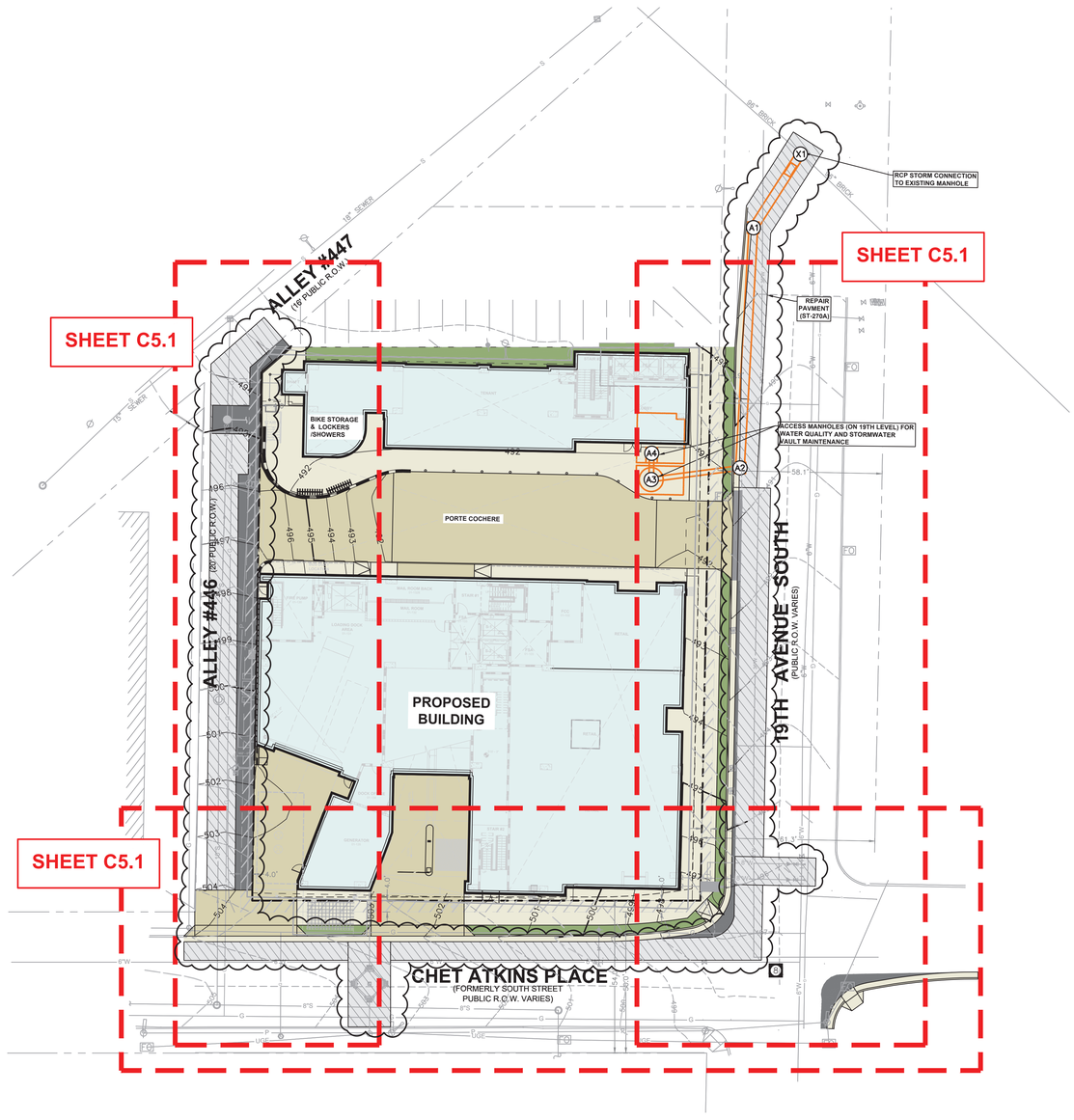
VEHICLE MOVEMENT PLAN

C4.2

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



AS-BUILT NOTES:

PLEASE BE AWARE THAT METRO HAS REVISED THE AS–BUILT PROCESS AND REQUIREMENTS AS A PART OF THE FEBRUARY 2016 REGULATIONS UPDATED. PLEASE NOTE THAT THE FOLLOWING ARE REQUIRED AS A PART OF THE AS–BUILT PLAN:

A. A CERTIFICATION LETTER FROM TN REGISTERED P.E. STATING THAT THE SITE HAS BEEN INSPECTED AND THAT THE STORMWATER MANAGEMENT SYSTEM AND STORMWATER CONTROL MEASURES (BOTH STRUCTURAL AND NON–STRUCTURAL) ARE COMPLETE AND FUNCTIONAL IN ACCORDANCE WITH THE PLANS APPROVED BY MWS.

B. AN AS–BUILT LID SPREADSHEET.

C. HYDROLOGIC AND HYDRAULIC CALCULATION FOR AS–BUILT CONDITIONS, AS REQUIRED.

D. AS–BUILT DRAWINGS SHOWING FINAL TOPOGRAPHIC FEATURES OF ALL THESE FACILITIES. THIS SHALL INCLUDE INVERT ELEVATIONS OF OUTLET CONTROL STRUCTURES.

E. ANY DEVIATIONS FROM THE APPROVED PLANS SHALL BE NOTED ON AS–BUILT DRAWINGS SUBMITTED.

F. COPY OF AS–BUILT PLAN CAD FILE ON A CD AND SHOULD BE REGISTERED TO THE TN STATE PLAN COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD83). DATA SHOULD BE PLACED IN SEPARATE LAYERS AND SHOULD BE LABELED/NAMED FOR EASY IDENTIFICATION.

G. CUT AND FILL BALANCE CERTIFICATION FOR FLOODPLAIN AND SINKHOLE ALTERATIONS.

H. WATER QUALITY BUFFERS SHALL BE SURVEYED AND INCLUDED WITH THE AS–BUILT SUBMITTAL.

I. ANY PUBLIC (TO BECOME THE RESPONSIBILITY OF METRO TO MAINTAIN) STORMWATER INFRASTRUCTURE SHALL BE VIDEO–INSPECTED TO VERIFY PROPER INSTALLATION WITH THE VIDEO RECORDING AND ANY ASSOCIATED INSPECTION REPORT SUBMITTED AS PART OF AS–BUILT RECORD.

J. ADDITIONAL TESTING MAY BE REQUIRED AS/IF WARRANTED BY VIDEO INSPECTION.

GRADING NOTE (ACCESSIBLE ENTRANCE):

ALL ENTRANCES ON ANY BUILDING WHICH IS CONSIDERED A HANDICAP ACCESSIBLE ENTRANCE IS TO BE PROVIDED FOR A MINIMUM OF 60"x60" LANDING FOR A SINGLE DOOR AND A 72"x60" LANDING FOR A DOUBLE DOOR, IF A PROPOSED ACCESS EXCEEDS A 72" WIDTH THE LANDING IS TO ACCOMMODATE SAID ACCESS WIDTH. SAID LANDING IS NOT TO EXCEED A 1% GRADE (1/8"/FOOT FALL) IN ANY DIRECTION. CONTRACTOR IS TO COORDINATE WITH DESIGNING ARCHITECT FOR ALL LOCATIONS, LAYOUTS, ELEVATIONS AND TREATMENTS TO ANY PROPOSED BUILDING ACCESS.

STORM DRAINAGE NOTES:

1. ALL STORMWATER WORKS ON THIS PROJECT WILL BE CONSTRUCTED TO BE IN COMPLIANCE WITH THE CITY OF NASHVILLE PUBLIC WORKS SPECIFICATIONS AND REQUIREMENTS.
2. TRENCHES FOR STORMWATER PIPING WILL BE BEDDED WITH 4" OF CRUSHED STONE TO RECEIVE THE CULVERT PIPE AND GIVE A UNIFORM BEARING ALONG THE RUN OF THE TRENCH. REMAINING TRENCH SECTION TO BE BACKFILLED WITH CLEAN STONE #57 TO TOP OF PIPE OR TO SUBGRADE WHEN LOCATED IN PAVEMENT.
3. TOP OF CASTING EL. REFERS TO TOP OF GRATE OF "K" AND "M" & "H" CASTINGS. DRAINAGE STRUCTURE CASTING SHALL BE DRY SET WHEN BUILT AND MORTAR SET LATER WHEN ADJUSTED TO GRADE OF FINAL SURFACE TREATMENT.
4. B.W. REFERS TO FINISHED GRADE AT BOTTOM OF WALL.

DRAINAGE STRUCTURE SCHEDULE

NO.	TYPE*	CASTING	RIM	INVERTS
A1	SINGLE CURB INLET	JBS 3124	488.71	481.50 (X1) 481.60 (A2)
A2	SINGLE CURB INLET	JBS 3124	490.48	482.20 (A1) 482.30 (A3)
A3	WQU	1110 "STORM"	491.69	482.50 (A2) 482.50 (A4)
A4	VAULT OUTLET CONTROL	1110 "STORM"	489.35	482.60 (A3)
X1	EXISTING AREA DRAIN MANHOLE	EXISTING	488.67	481.30 (A1)

ALL CASTING TO BE JOHN BOUCHARD & SONS CO. OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.

PIPE TABLE

LINE	SIZE/TYPE	LENGTH	SLOPE
A1–A2	30" RCP	85'	0.70%
A2–A3	15" RCP	32'	0.63%
A3–A4	15" PVC	9'	1.08%
X1–A1	30" RCP	31'	0.65%

ALL PIPES TO BE RCP, CLASS III, UNLESS OTHERWISE NOTED.

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS–BUILT CERTIFICATIONS, MWS STORMWATER DIVISIONMUST APPROVE THE FOLLOWING AS–BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS
- WATER QUALITY UNIT

THE ENGINEER SHALL VISIT WWW.NASHVILLE.GOV/STORMWATER/ASBUILT.HTM FOR SUBMITTAL REQUIREMENTS.

PAVEMENT LEGEND

- MILL OVERLAY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE WALK
- GRASS/PLANTER AREA

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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PLOTTED BY: BARBARA PATTERSON ON: 4/30/2020 8:58 AM LAST UPDATED BY: BPATTERSON ON: 4/30/2020 8:01 AM

Gresham Smith

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Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

Revision

No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/PRWS & GM/CK COMMENTS

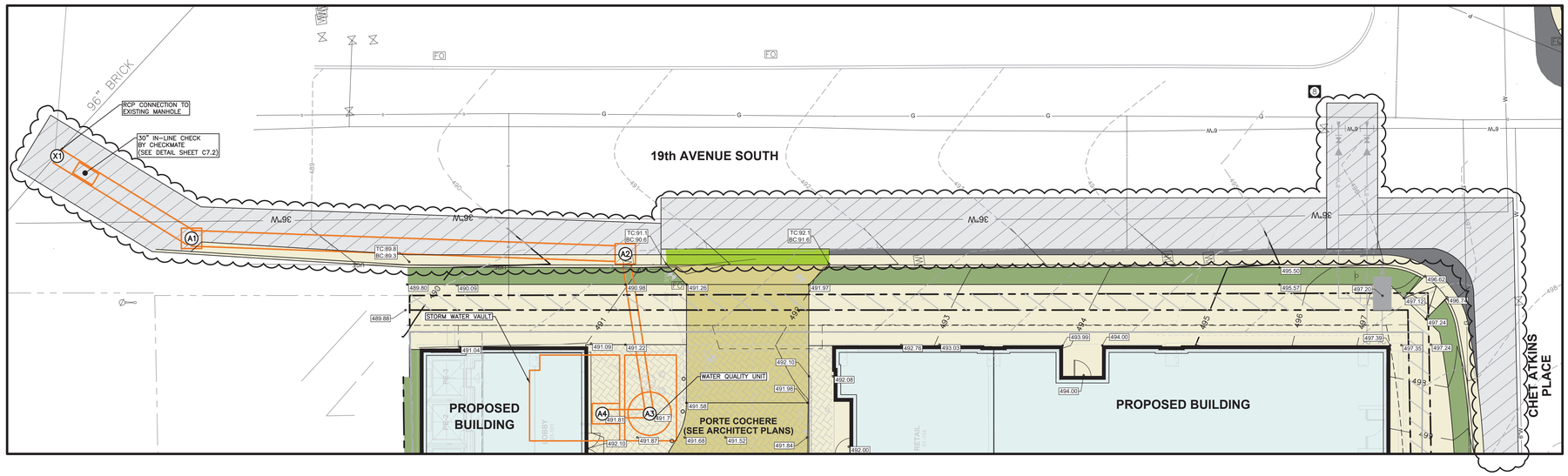
OVERALL SITE GRADING, DRAINAGE & EROSION CONTROL PLAN

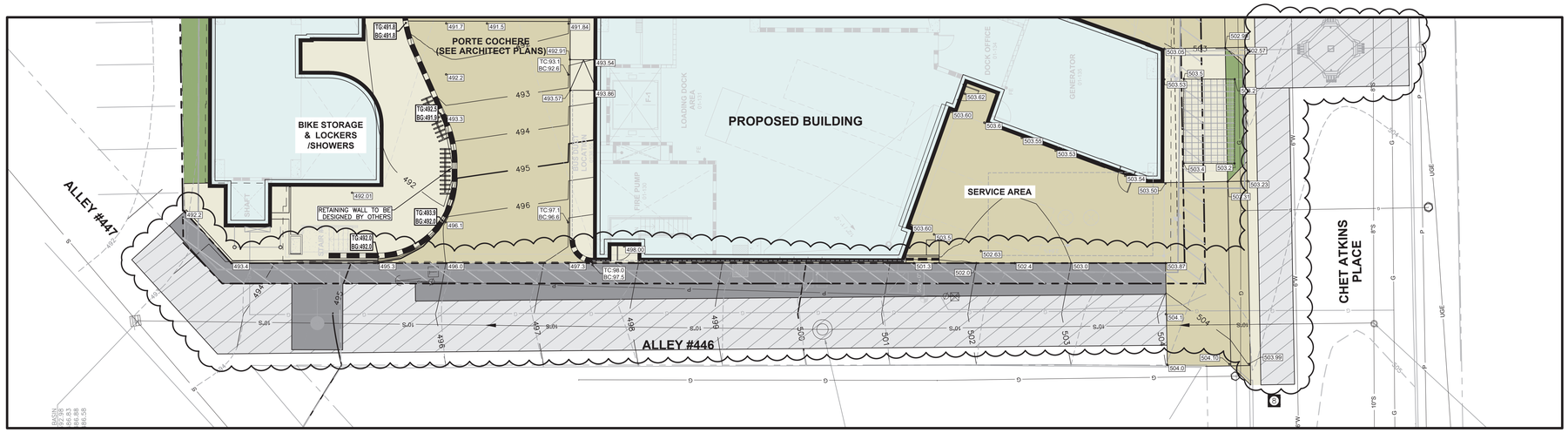
C5.0

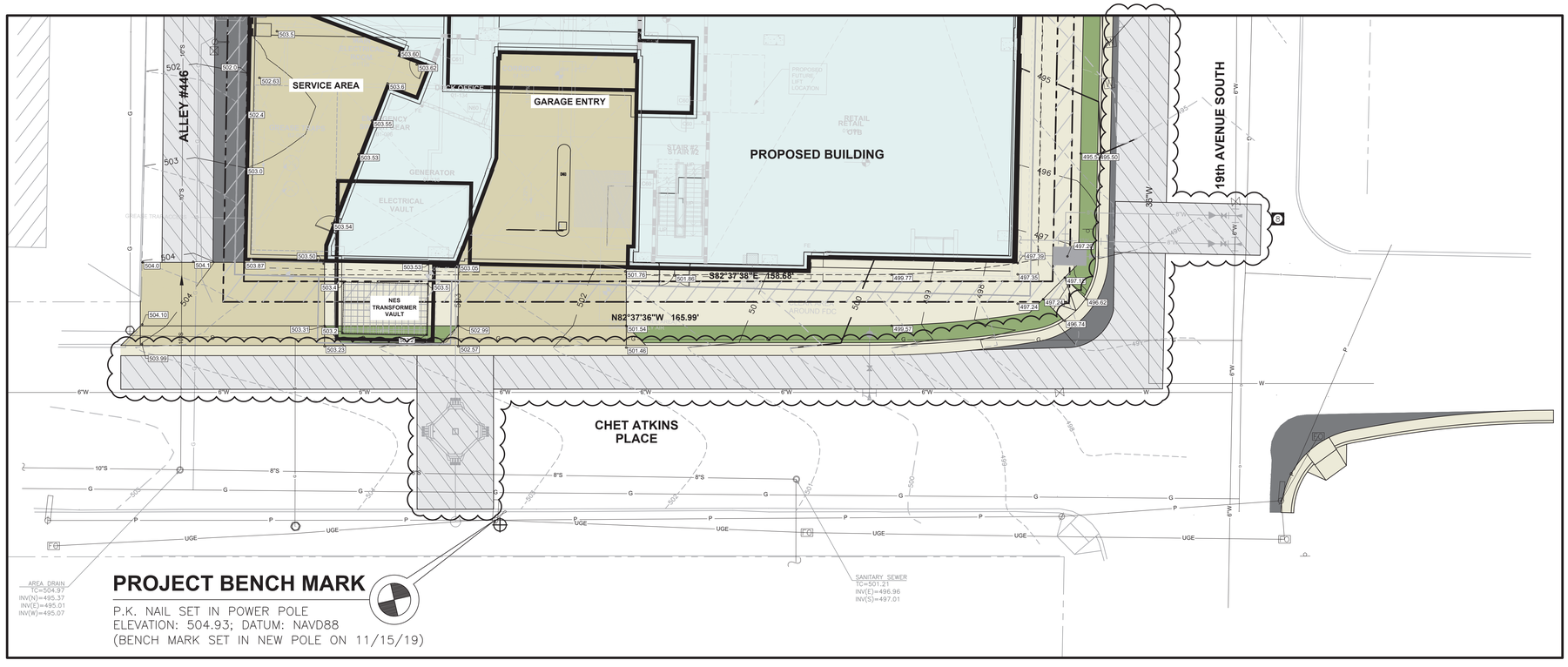
PROJECT:42885.01
DATE: 02.21.2020

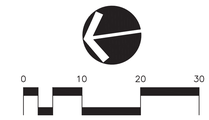
LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MBS
Checked By: EBF
Approved By: EBF

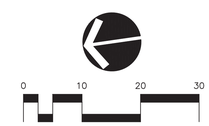




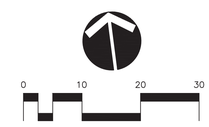




19th AVENUE SOUTH



ALLEY #446



CHET ATKINS PLACE

PER TIS RECOMMENDATIONS:
THE EASTBOUND APPROACH OF CHET ATKINS PLACE AT 19TH AVENUE SOUTH INTERSECTION SHOULD BE STRIPED WITH SEPARATE LEFT AND RIGHT (AND THROUGH) TURN LANES. THE RIGHT TURN LANE SHOULD INCLUDE A MINIMUM OF 100 FEET OF STORAGE. ADDITIONALLY, THE EXISTING PARKING ON THE NORTH SIDE OF CHET ATKINS PLACE SHOULD BE REMOVED WITHIN 100 FEET OF THE STOP LINE AT THE 19TH AVENUE SOUTH INTERSECTION. THE APPROACHING RESTRIPING SHOULD INCLUDE A NEW STOP BAR AND A PEDESTRIAN CROSSWALK ALONG CHET ATKINS PLACE.

PAVEMENT LEGEND

- MILL OVERLAY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE WALK
- GRASS/PLANTER AREA

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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PLOTTED BY BAKER, PATTERSON ON: 4/30/2020 8:59 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 8:05 AM

Gresham Smith

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ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/RWS & GM/CK COMMENTS

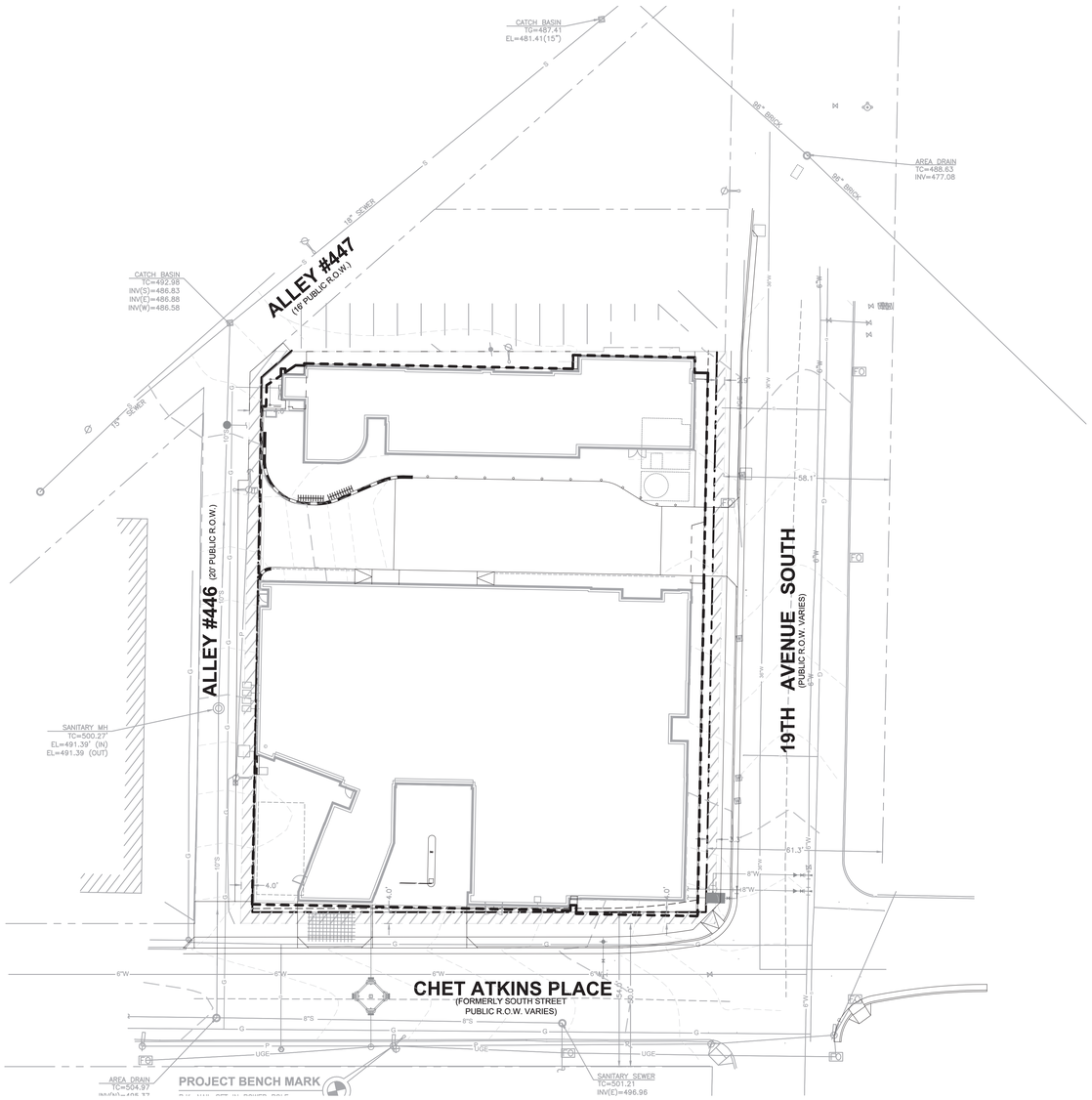
ENLARGED SITE GRADING, DRAINAGE & EROSION CONTROL PLAN

C5.1

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



FINAL STABILIZATION:

UPON COMPLETION THE FOLLOWING METHODS SHALL BE USED AS FINAL STABILIZATION FOR EROSION CONTROL.

1. ALL TEMPORARY OR "DURING CONSTRUCTION" EROSION CONTROL MEASURES SHALL BE REMOVED. I.E. SILT FENCE, CONSTRUCTION ENTRANCE, INLET PROTECTION, EXCESSIVE RIPRAP, ECT.
2. SEDIMENT ACCUMULATION SHALL BE REMOVED FROM SEDIMENT POND, SWALES, DITCHES, INLETS, AND OUTFALLS.
3. SEDIMENT AND DEBRIS REMOVED SHALL BE DISPOSED OF PROPERLY. IF CONTAMINATION OF MATERIALS SUSPECTED, CONTACT TDEC OR LOCAL WASTE MANAGEMENT FOR PROPER DISPOSAL.
4. ALL AREAS OF EXPOSED SOILS SHALL RECEIVE SEED/STRAW, SODDING, EROSION CONTROL MATTING, AND/OR MULCH.
5. ALL SWALES AND DITCHES SHALL HAVE A HEALTHY STAND OF GRASS.
6. THE SEDIMENT POND SHALL HAVE A HEALTHY STAND OF GRASS OR REMOVED IF APPROVED BY THE CITY.
7. ALL OUTFALLS SHALL POSSESS AN APPROPRIATE AMOUNT OF RIPRAP OR OTHER APPROVE MEANS TO PREVENT SCOURING.

POST CONSTRUCTION BMP MAINTENANCE/ INSPECTION PROCEDURES:

THESE POST CONSTRUCTION BMP MAINTENANCE PROCEDURES SHALL BE CONDUCTED TO ENSURE PROPER FUNCTIONALITY.

1. SWALES/DITCHES/SLOPES:
   GOOD VEGETATION SHALL BE MAINTAINED. EROSION CONTROL MATTING MAY BE NEEDED IF OUT OF THE GROWING SEASON.
   ANY SCOUR SHOULD BE CORRECTED IMMEDIATELY.
   SEDIMENT ACCUMULATION AND DEBRIS SHALL BE REMOVED.
2. GRASSED/SODDED AREAS:
   ANY BARE SOILS SHALL BE ADDRESSED IMMEDIATELY.
   ADDITIONAL SEED AND STRAW MAY BE NEEDED WHERE GOOD GERMINATION DID NOT OCCUR.
   MULCH MAY BE USED TO PROTECT EXPOSED SOILS.

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISIONMUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS
- WATER QUALITY UNIT

THE ENGINEER SHALL VISIT WWW.NASHVILLE.GOV/STORMWATER/ASBUILT.HTM FOR SUBMITTAL REQUIREMENTS.

0 20 40 60

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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PLOTTED BY BAKKAY.PATTERSON ON: 4/30/2020 12:45 PM LAST UPDATED BY BPATTERSON ON: 4/30/2020 12:42 PM

Gresham Smith

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Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP

CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

RYAN BLAKE FOSTER
REGISTERED ENGINEER
No. 120453
STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS

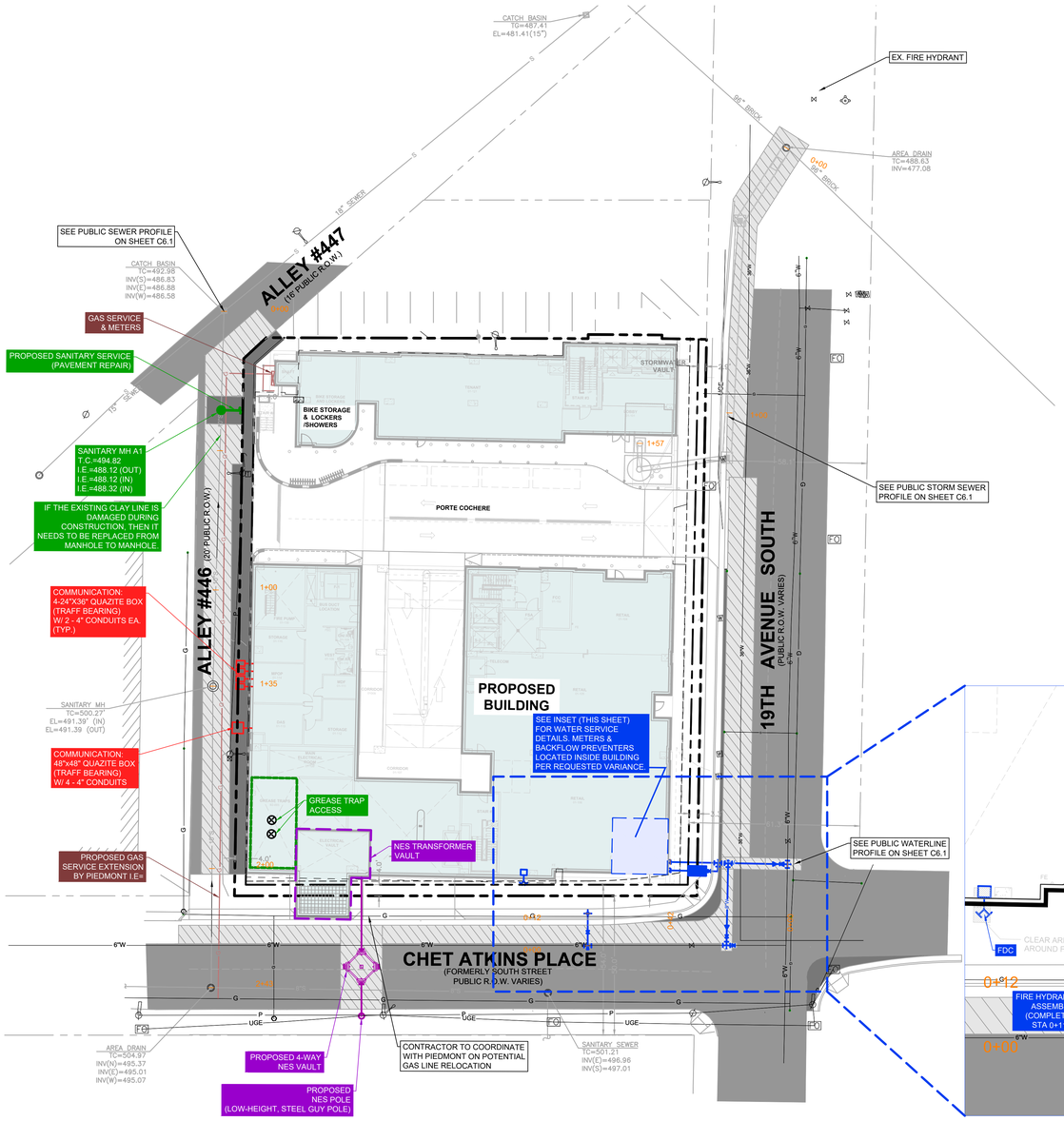
FINAL EROSION CONTROL PLAN

C5.2

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



MWS STANDARD PUBLIC UTILITY PLAN NOTES:

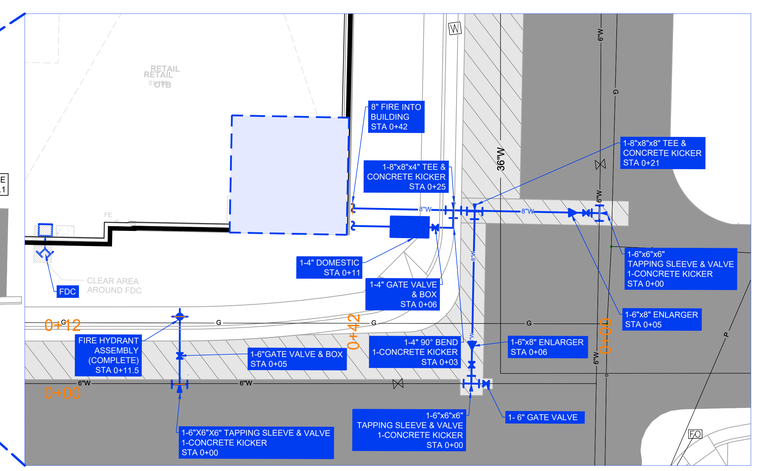
1. All water and sewer construction shall be in accordance with specifications and standard details of the Metro Water Services.
2. The contractor is responsible for reimbursing the Metro Water Services the cost of inspection.
3. The contractor is to provide and maintain the construction identification sign for private development approved.
4. After completion of the sanitary sewer, the developer is responsible for the televising of the lines prior to final acceptance. The videotaping must be coordinated with the Metro Water Services Inspection Section. All costs will be borne by the developer.
5. All connections to existing manholes shall be by coring and resilient connector method.
6. Reduced Pressure Backflow Prevention Devices (RPBP) or dual check valve will be required on all test and fill lines (jumper) needed for water main construction and must be approved by the Metro Water Services.
7. All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
8. Upon completion of construction of water and/or sewer, the engineer shall provide the department with a complete set of as-built plans in digital (DWG and PDF) format. All drawings must be completed and submitted prior to acceptance of the sewers or water mains into the public system and any connections being made.
   a. Sewer plans shall be sealed by a licensed professional engineer and/or a registered land surveyor and shall include actual field angles between lines, all actual service lines and tee locations, the distance of the end of the service line to property corners and lines and/or station and offset from sewer centerline to end of service line, the depth to the top of the end of the service line, and shall reflect all alignment and grade changes.
   b. Water line plans shall be sealed by a licensed professional engineer and/or a registered land surveyor and shall include offset distance from the roadway centerline, or property line right of way, line depth, locations of hydrants, valves, reducers, tees and pressure reducing devices where applicable.
9. Pressure regulating devices will be required on the customer side of the meter when pressures exceed 100 psi.
10. Pressure regulating devices will be required on the street side of the meter when pressures exceed 150 psi.
11. All water mains must be located within the paved area including all blow-off assemblies.
12. All lead or galvanized water service lines encountered with this project shall be reinstated with copper of like size from the water main to the meter box.
13. Domestic and irrigation water meters and associated appurtenances shall not be placed in or under a paved or improved surface other than the portion of the service located within the right of way.
14. Sanitary sewer taps shall be placed at the lowest adjacent sewer main elevation for each premises and shall not be located in or under a paved or improved surface other than the portion within the right of way.

MWS STANDARD PRIVATE UTILITY PLAN NOTES

1. All water and/or sewer services, along with appurtenances, shall be installed in accordance with specifications and standard details of the Metro Water Services.
2. All connections to existing manholes shall be by coring and resilient connector method.
3. Vertical Double Check Valve Assemblies, that are located in interior rooms, can only be used for fire services.
4. All water meters shall be a minimum of 24" not to exceed a maximum of 28" below finished grade.
5. Irrigation line shall be copper from the meter to the backflow preventer.
6. The minimum fees outlined in the capacity letter must be paid before commercial construction plans can be reviewed.
7. All sewer services shall be minimum 6 inches in diameter, from connection at the main until the first clean out assembly.
8. Backflow device to remain accessible at all times.
9. Plan size shall be 24" x 36", and shall show contours around meter boxes.
10. Any unused existing water meters must be cut and capped at the public main.
11. All lead or galvanized water service lines encountered with this project shall be reinstated with copper of like size from the water main to the meter box.
12. Domestic and irrigation water meters and associated appurtenances shall not be placed in or under a paved or improved surface other than the portion of the service located within the right of way.
13. Sanitary sewer taps shall be placed at the lowest adjacent sewer main elevation for each premises and shall not be located in or under a paved or improved surface other than the portion within the right of way.

UTILITY CONTACTS

WATER & SEWER	METRO WATER AND SEWERAGE SERVICE (615) 862–4505
PUBLIC WORKS	METRO PUBLIC WORKS (615) 862–8700 PERMITS
ELECTRIC	NASHVILLE ELECTRIC SERVICE (615) 747–3945
GAS	PIEDMONT NATURAL GAS (615) 734–1753 LAMAR MORGAN
TELEPHONE	AT&T (615) 214–7337 DON CROHAN
CABLE	COMCAST (615) 244–7462



INSET
SCALE: 1'=10"

0 20 40 60

SUP# 2020003008
SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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MOORE BLDG

FORMERLY NAMED:
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CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

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8	04/30/20	PER NES/MWS & QA/QC COMMENTS
9	05/27/20	PER MWS COMMENTS
10	06/02/20	PER MWS COMMENTS
11	10/08/21	PER MWS COMMENTS

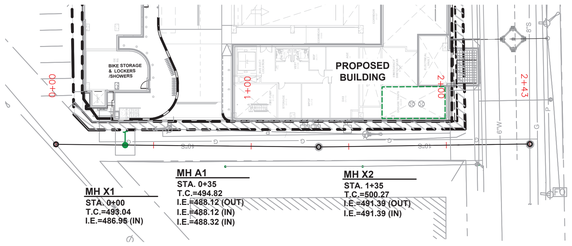
SITE UTILITY PLAN

C6.0

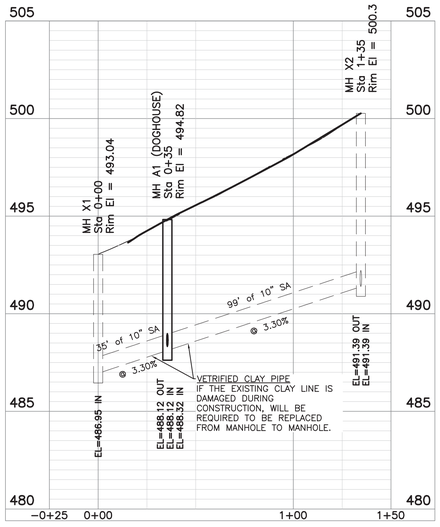
PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF

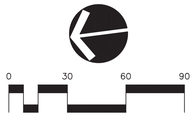


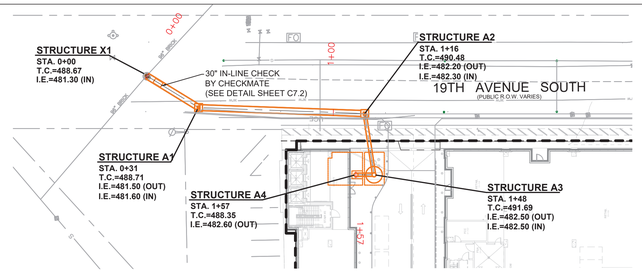
EXISTING PUBLIC SEWER LINE



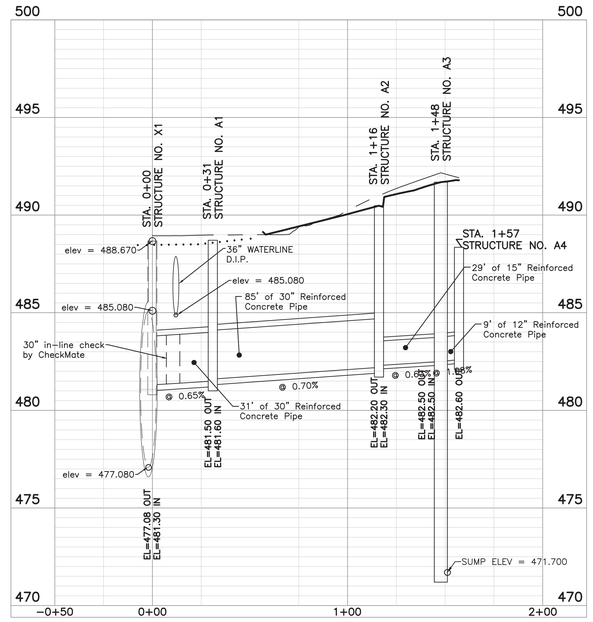
SCALES:

PLAN VIEW	PROFILE VIEW
1" =30'	1" =30' HORIZONTAL
	1" =3' VERTICAL



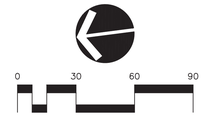


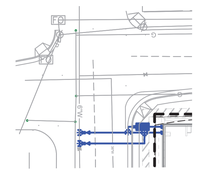
PUBLIC STORM LINE



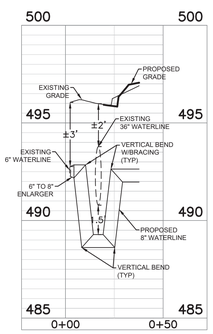
SCALES:

PLAN VIEW	PROFILE VIEW
1" =30'	1" =30' HORIZONTAL
	1" =3' VERTICAL





PUBLIC WATER LINE



SCALES:

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1" =30'	1" =30' HORIZONTAL
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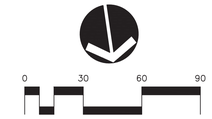
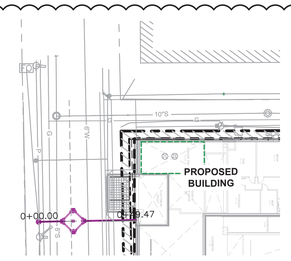
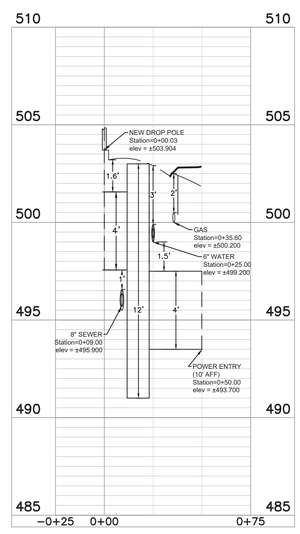


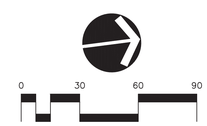


NES POWER LINE



SCALES:

PLAN VIEW	PROFILE VIEW
1" =30'	1" =30' HORIZONTAL
	1" =3' VERTICAL



SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-097\01-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970 PROFILE.DWG
PLOTTED BY BARAK PATTERSON ON: 4/30/2020 9:13 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 8:41 AM

Gresham Smith

222 Second Avenue South
Suite 1400
Nashville, TN 37201
615.770.8100

CONSULTANT:

RAGAN•SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
Chattanooga 423-490-9400
Nashville 615-244-5591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

CONSTRUCTION DOCUMENTS

Revision

No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/28/20	PER NES/MWS COMMENTS

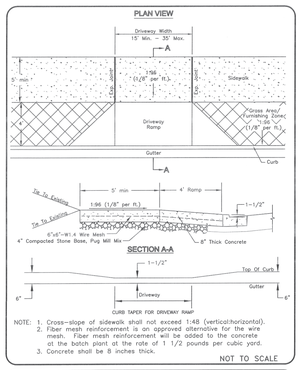
PUBLIC UTILITY
PROFILE PLANS

C6.1

PROJECT:42885.01
DATE: 02.21.2020

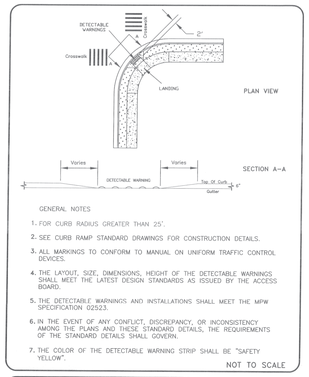
LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF



NOTE:
1. Cross-slope of sidewalk shall not exceed 1:48 (vertical:horizontal).
2. Fiber mesh reinforcement is an approved alternative for the wire mesh. Fiber mesh reinforcement will be added to the concrete at the batch plant at the rate of 1 1/2 pounds per cubic yard.
3. Concrete shall be 8 inches thick.

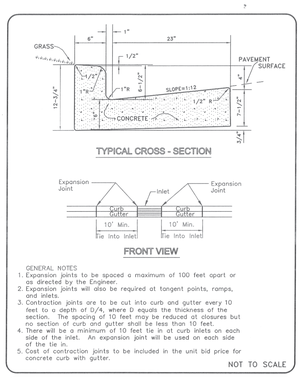
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NEW CONSTRUCTION COMMERCIAL DRIVEWAY RAMP	DWG. NO. ST-324
DIR. OF ENG.: Mark Macy DATE: 5/12/03	REVISED: 07/27/02 REVISED: 05/08/03 REVISED:	



GENERAL NOTES
1. FOR CURB RADIUS GREATER THAN 25'.
2. SEE CURB RAMP STANDARD DRAWINGS FOR CONSTRUCTION DETAILS.
3. ALL MARKINGS TO CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. THE LAYOUT, SIZE, DIMENSIONS, HEIGHT OF THE DETECTABLE WARNINGS SHALL MEET THE LATEST DESIGN STANDARDS AS ISSUED BY THE ACCESS BOARD.
5. THE DETECTABLE WARNINGS AND INSTALLATIONS SHALL MEET THE MPW SPECIFICATION 02523.
6. IN THE EVENT OF ANY CONFLICT, DISCREPANCY, OR INCONSISTENCY AMONG THE PLANS AND THESE STANDARD DETAILS, THE REQUIREMENTS OF THE STANDARD DETAILS SHALL GOVERN.
7. THE COLOR OF THE DETECTABLE WARNING STRIP SHALL BE "SAFETY YELLOW".

NOT TO SCALE

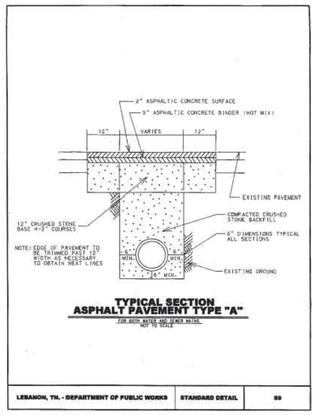
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	DETECTABLE WARNINGS AT CURB RETURNS WITH RADIUS GREATER THAN 25'	DWG. NO. ST-330
DIR. OF ENG.: Mark Macy DATE: 6/17/05	REVISED: 08/17/05 REVISED: 08/13/04 REVISED:	



GENERAL NOTES
1. Expansion joints to be spaced a maximum of 100 feet apart or as directed by the Engineer.
2. Expansion joints will also be required at tangent points, ramps, and inlets.
3. Contraction joints are to be cut into curb and gutter every 10 feet to a depth of D/4, where D equals the thickness of the section. The spacing of 10 feet may be reduced at closures but no section of curb and gutter shall be less than 10 feet.
4. There will be a minimum of 10 feet tie in at curb inlets on each side of the inlet. An expansion joint will be used on each side of the tie in.
5. Cost of contraction joints to be included in the unit bid price for concrete curb with gutter.

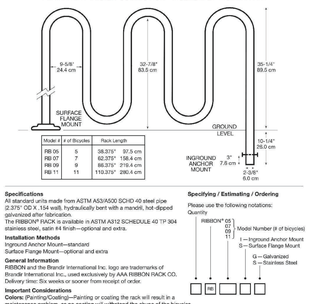
NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD CURB WITH GUTTER	DWG. NO. ST-200
DIR. OF ENG.: Mark Macy DATE: 5/12/03	REVISED: 07/27/00 REVISED: 05/00/03 REVISED:	



The Original Ribbon Rack—IDSA National Design Award Winner

PERMANENT DESIGN COLLECTION—MUSEUM OF MODERN ART



Model #	# of Bicycles	Rack Length
RB 05	5	38.375" 97.5 cm
RB 07	7	62.375" 158.4 cm
RB 09	9	88.375" 219.4 cm
RB 11	11	110.375" 280.4 cm

Specifications
All standard units made from ASTM A53/A500 SCHD 40 steel pipe (2.375" OD X .154 wall), hydraulically bent with a mandrill, hot-dipped galvanized after fabrication.
The RIBBON® RACK is available in ASTM A312 SCHEDULE 40 TP 304 stainless steel, satin #4 finish—optional and extra.

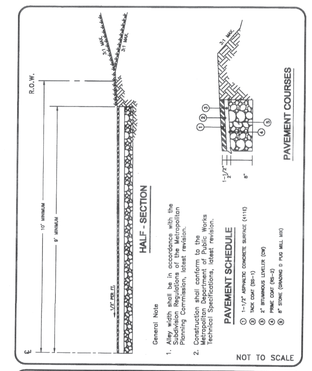
Installation Methods
Inground Anchor Mount—standard
Surface Flange Mount—optional and extra

General Information
RIBBON and the Brandir International Inc. logo are trademarks of Brandir International Inc., used exclusively by AAA RIBBON RACK CO.
Delivery time: Six weeks or sooner from receipt of order.

Important Considerations
Colors: (Painting/Coating)—Painting or coating the rack will result in a maintenance problem, as no coating will withstand the abuse of the bicycles. Powder coating cannot be maintenanced; an enamel finish will chip. AAA RIBBON RACK CO. has the best solution where color is essential. Please contact us to find out how to achieve an appropriate color with a minimum of maintenance.
Materials: Steel tubing or aluminum are not suitable materials for a bicycle rack. Pre-galvanized material will flake and crack during manufacture. AAA RIBBON RACK CO. uses heavy-duty steel pipe, hot-dipped galvanized after fabrication to provide security and durability.
Manufacture: Hydraulic bending with a mandrill, as used by AAA RIBBON RACK CO., insures smooth and aesthetic curves on the Ribbon® Rack. Press bending leaves an indentation; other methods flatten outer curves and crimp inner curves.

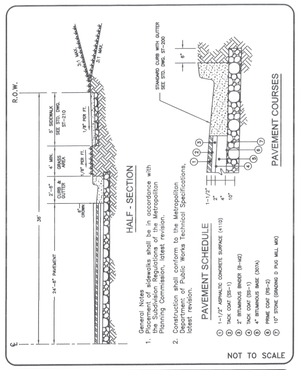
Specifying / Estimating / Ordering
Please use the following notations:
Quantity
RIBBON® 05 07 09 11 — Model Number (# of bicycles)
I — Inground Anchor Mount
S — Surface Flange Mount
G — Galvanized
S — Stainless Steel

AAA RIBBON BIKE RACK CO.
Division of
BRANDIR INTERNATIONAL, INC.
521 Fifth Avenue, 17th Floor
New York, NY 10175-1799 USA
Phone: **800-849-3468**
Email: **info@ribbonrack.com**
Web: **ribbonrack.com**



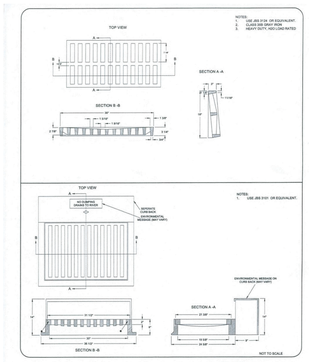
General Notes
1. Alley width shall be in accordance with the Subdivision Regulations of the Metropolitan Planning Commission, latest revision.
2. Construction shall conform to the Metropolitan Government of Nashville Davidson County Technical Specifications, latest revision.

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD ALLEY SECTION	DWG. NO. ST-263
ASST. DIR. ENG.: Mark Macy DATE: 8/25/00 DIRECTOR: Rick Lacey DATE: 8/25/00	REVISED: 08/25/00	

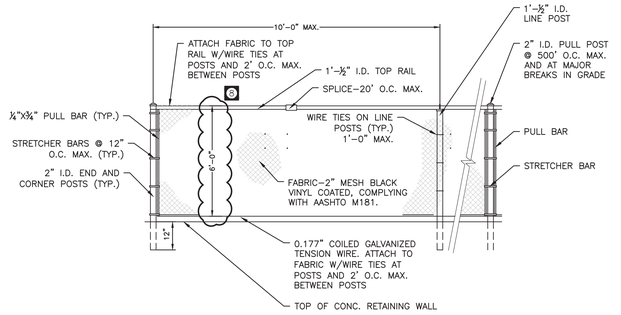


General Notes
1. Alley width shall be in accordance with the Subdivision Regulations of the Metropolitan Planning Commission, latest revision.
2. Construction shall conform to the Metropolitan Government of Nashville Davidson County Technical Specifications, latest revision.

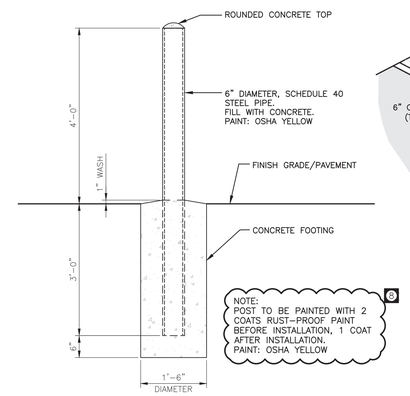
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NON-RESIDENTIAL COLLECTOR STREET (72' R.O.W.)	DWG. NO. ST-261
ASST. DIR. ENG.: Mark Macy DATE: 8/8/01 DIRECTOR: R. Lacey DATE: 8/8/01	REVISED: 04/09/01	



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	BIKE FRIENDLY GRATE STANDARD	DWG. NO. ST-506a
DIR. OF ENG.: Mark Macy DATE: 2/8/10	REVISED: REVISED: REVISED:	

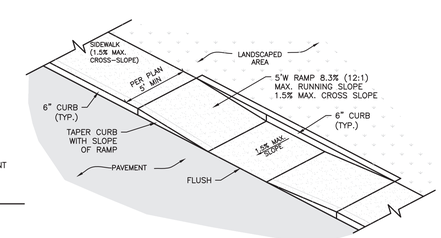


CHAIN LINK FENCE
NOT TO SCALE



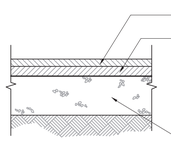
NOTE:
POST TO BE PAINTED WITH 2 COATS RUST-PROOF PAINT BEFORE INSTALLATION, 1 COAT AFTER INSTALLATION. PAINT: OSHA YELLOW

BOLLARD DETAIL
NOT TO SCALE



NOTES:
1. A VARIATION OF THE RAMP MAY BE USED IN CERTAIN CIRCUMSTANCES BUT MUST COMPLY WITH ADA SPECIFICATIONS

PARALLEL ACCESSIBLE RAMP
NOT TO SCALE

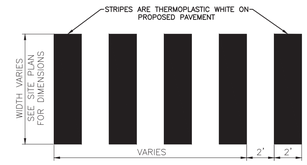


NOTES:
1. THIS PAVEMENT SECTION IS BASED ON TYPICAL AREA SOIL TYPES, SITE CONDITIONS AND LOADING. CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY FOR SITE SPECIFIC PAVEMENT RECOMMENDATIONS.
2. REFER TO "TDOT STANDARD SPECIFICATIONS AND BRIDGE CONSTRUCTION" FOR PAVING MATERIALS AND SPECIFICATIONS.

HEAVY DUTY PAVEMENT
NOT TO SCALE

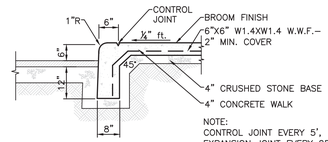
PROPOSED PAVEMENT SCHEDULE

	MATERIAL	THICKNESS (INCHES)	TDOT GRADING
1.	AGGREGATE BASE	8	C or D
2.	ASPHALT BASE	2	B-M
3.	ASPHALT SURFACE	1.5	E



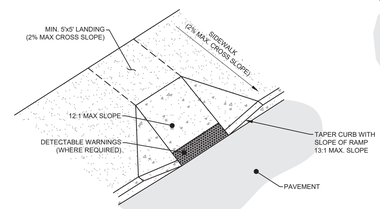
NOTES:
1. CONTRACTOR SHALL PROPERLY RE-ALIGN STOP BARS AND OTHER PAVEMENT MARKERS AS NECESSARY TO INSTALL CROSSWALK PER METRO STANDARDS.
2. CROSSWALK STRIPES SHALL BE APPLIED PER METRO STANDARDS.
3. CONTRACTOR SHALL APPLY LONG LIFE MARKING MATERIALS ONLY.

CROSSWALK DETAIL
NOT TO SCALE



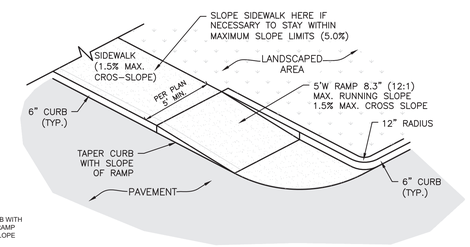
NOTE:
CONTROL JOINT EVERY 5', EXPANSION JOINT EVERY 25', UNLESS OTHERWISE NOTED.

CONCRETE WALK & TURN DOWN CURB
NOT TO SCALE



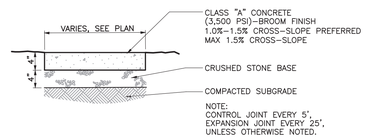
NOTES
1. DETECTABLE WARNINGS SHALL BE WHITACRE-GREER 4"x8" ADA PAVING BRICK OR APPROVED EQUAL. COLOR SHALL CONSTRAST VISUALLY WITH ADJOINING SURFACES.
2. INSTALL DETECTABLE WARNINGS PER MANUFACTURER'S SPECIFICATIONS.
3. A VARIATION OF THE RAMP MAY BE USED IN CERTAIN CIRCUMSTANCES BUT MUST COMPLY WITH ADA SPECIFICATIONS.

PERPENDICULAR CURB RAMP WITH FLARES
NOT TO SCALE



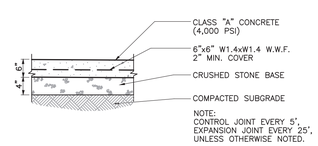
NOTES:
1. A VARIATION OF THE RAMP MAY BE USED IN CERTAIN CIRCUMSTANCES BUT MUST COMPLY WITH ADA SPECIFICATIONS.

ACCESSIBLE RAMP CURBED RADIUS
NOT TO SCALE



NOTE:
CONTROL JOINT EVERY 5', EXPANSION JOINT EVERY 25', UNLESS OTHERWISE NOTED.

CONCRETE WALK
NOT TO SCALE



NOTE:
CONTROL JOINT EVERY 5', EXPANSION JOINT EVERY 25', UNLESS OTHERWISE NOTED.

CONCRETE PAVEMENT
NOT TO SCALE

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-07701-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970_DETAILS.DWG
PLOTTED BY BRADAX PATTERSON ON: 4/30/2020 9:14 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 8:19 AM

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PROJECT:
MOORE BLDG
FORMERLY NAMED:
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CASE NO. 2017SP-095-003
827 19th Avenue
Nashville, TN 37212

SEAL:
PLAN BLAKE FOSTER REGISTERED ENGINEER No. 120457 STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision

No.	Date	Description
	02/21/20	CONSTRUCTION DOCUMENTS
8	04/30/20	PER NES/RWS & QA/QC COMMENTS.

CONSTRUCTION DETAILS

C7.1

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF

SITE SPECIFIC DATA*			
PROJECT NUMBER	T2019041013		
PROJECT NAME	THE MOORE BLDG		
PROJECT LOCATION	825 19TH AVE S		
STRUCTURE ID	A3		
WATER QUALITY FLOW RATE (CFS)			1.66
PEAK FLOW RATE (CFS)			2.7
PEAK STORM DURATION (YEARS)			10-YR
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	482.50	PVC	15"
OUTLET PIPE 1	482.50	RCP	15"
RIM ELEVATION	491.70		
SUMP ELEVATION	471.70		
SURFACE LOADING REQUIREMENT			
FRAME AND COVER			
KNOWN GROUNDWATER ELEVATION			N/A
NOTES:			

*PER ENGINEER OF RECORD

PERFORMANCE DATA	
TREATMENT FLOW RATE PER LOCAL REQUIREMENTS	
SETTLING AREA (SF)	38.47
LOADING RATE (GPM/SF)	
SEDIMENT STORAGE CAPACITY (CF)	256.56

STORAGE CAPACITIES

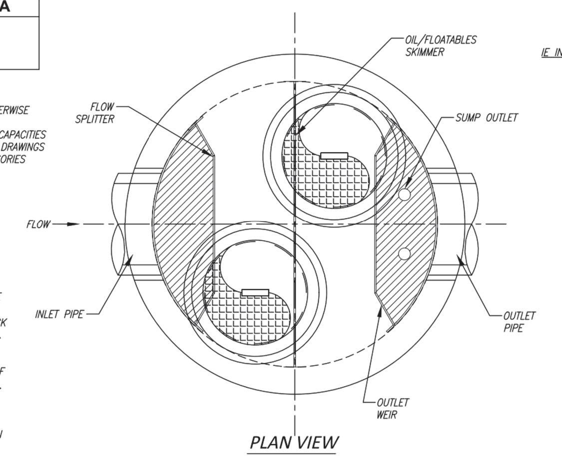
SUMP CHAMBER CAPACITY	DIAMETER (FT)	AREA (SF)	HEIGHT (FT)	TOTAL (CF)
CHAMBER 1	7.00	38.47	6.67	256.56

GENERAL NOTES

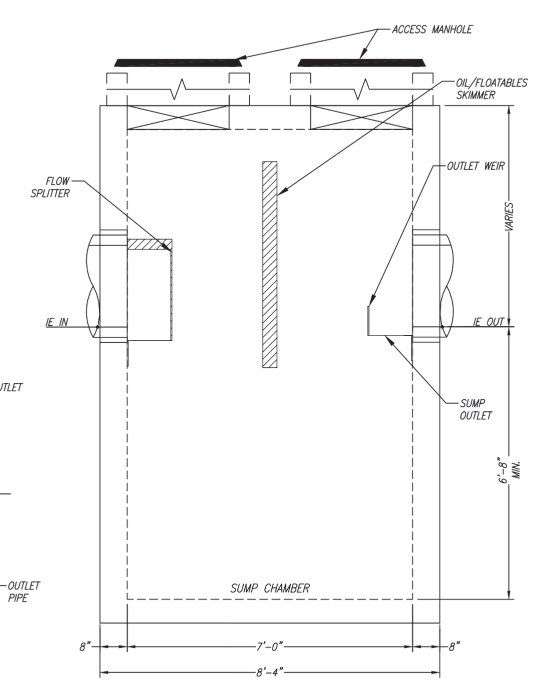
1. BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.
3. ALTERNATIVE HATCHES AVAILABLE UPON REQUEST.

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. MANUFACTURER RECOMMENDS A 6"-12" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.



PLAN VIEW
NTS



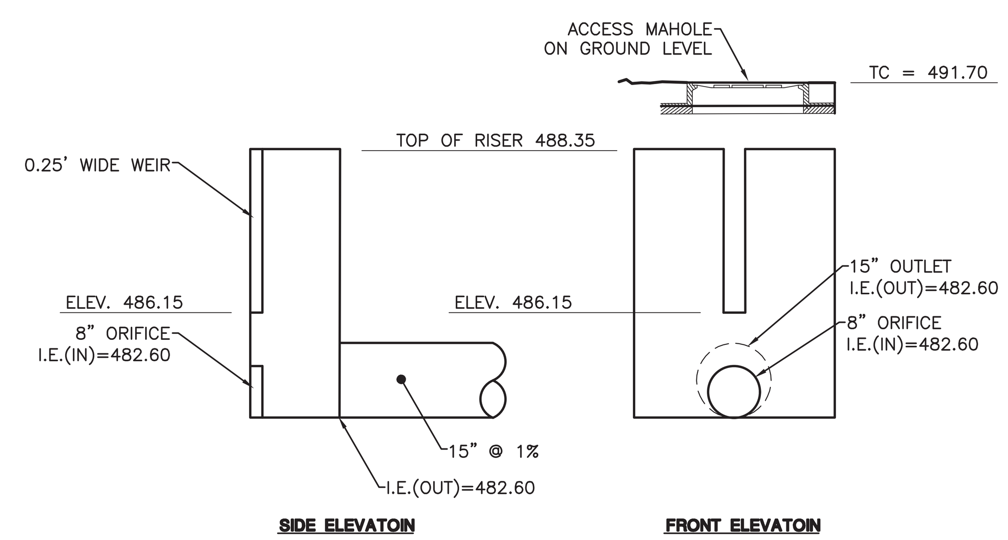
ELEVATION VIEW
NTS

THE PRODUCT DESCRIBED MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 6,428,692; 7,294,256; 7,846,327; 7,153,417; 7,270,747; RELATED FOREIGN PATENTS OR OTHER PATENTS PENDING

PROPRIETARY AND CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BIO CLEAN ENVIRONMENTAL SERVICES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BIO CLEAN ENVIRONMENTAL SERVICES, INC. IS PROHIBITED.

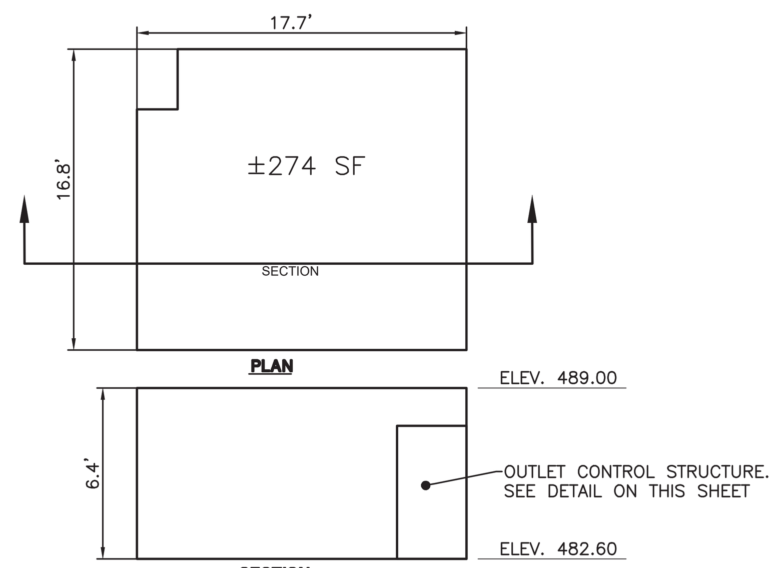
Bio Clean — A Forterra Company

SC-7
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL



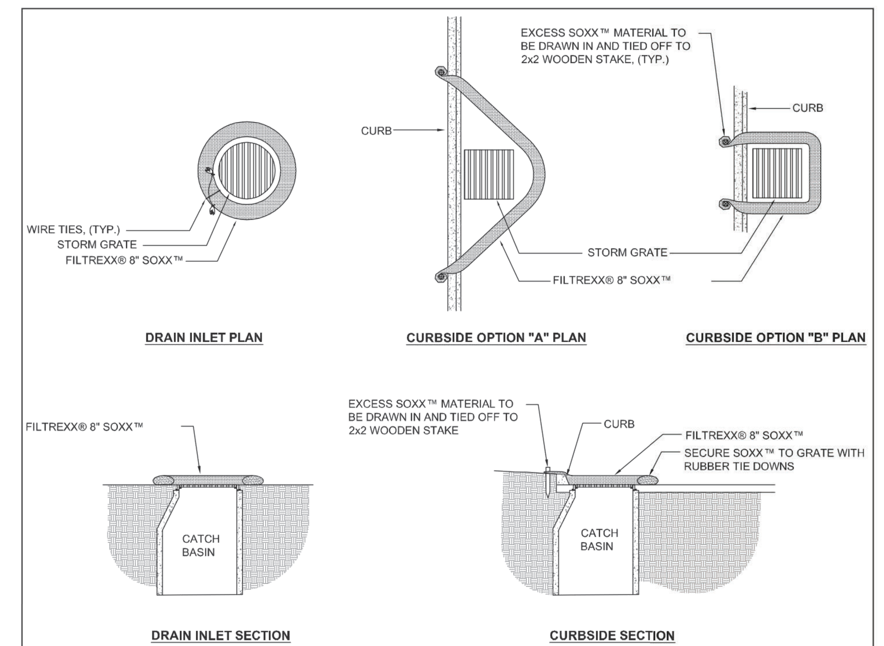
VAULT OUTLET CONTROL STRUCTURE

NOT TO SCALE



INTERNAL WATER STORAGE VAULT

NOT TO SCALE

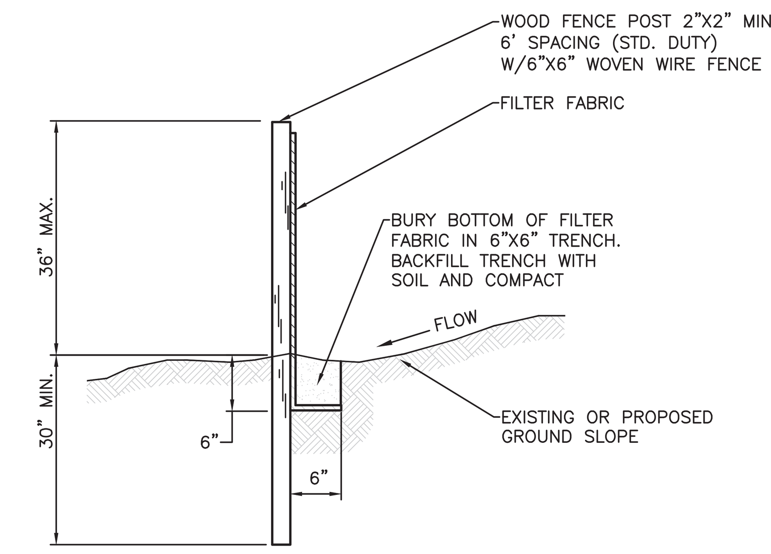


NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® INLET PROTECTION

NTS

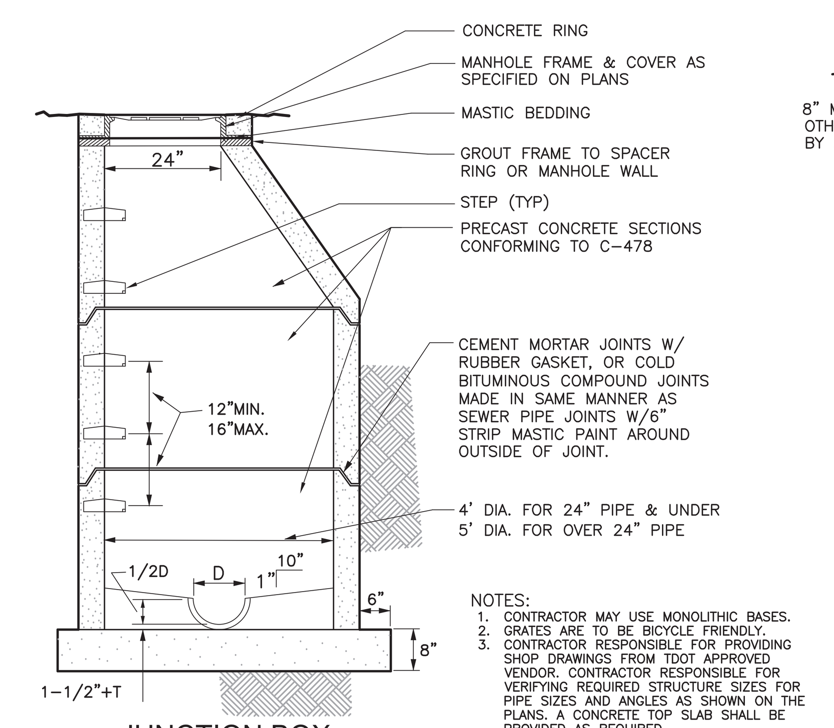
METRO FIGURE TCP-24



TO BE INSTALLED AS NOTED ON PLAN BEFORE COMMENCING GRADING OPERATION AND LEFT IN PLACE UNTIL A GOOD STAND OF GRASS IS ESTABLISHED OVER ALL DISTURBED AREAS. PRIOR TO INSTALLATION, CONTRACTOR SHOULD CONFIRM WITH THE PUBLIC WORKS DEPT. THAT THIS DETAIL IS THE CURRENT AND APPROVED EROSION/SILTATION BARRIER.

EROSION/SILTATION FENCE WITH WIRE BACKING

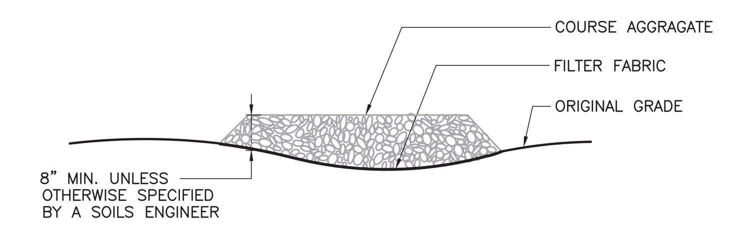
NOT TO SCALE



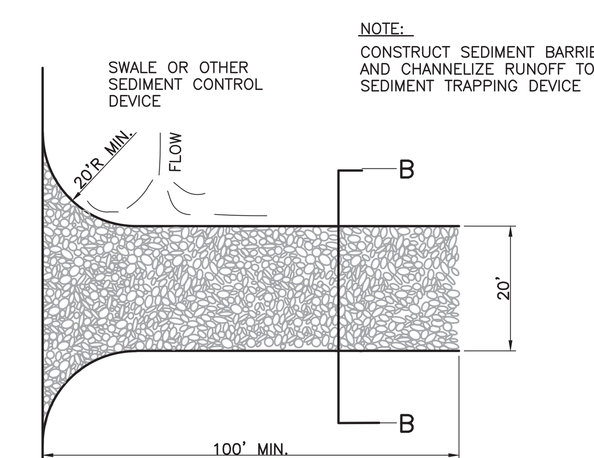
JUNCTION BOX

NOT TO SCALE

NOTES:
1. CONTRACTOR MAY USE MONOLITHIC BASES.
2. GRATES ARE TO BE BICYCLE FRIENDLY.
3. CONTRACTOR RESPONSIBLE FOR PROVIDING SHOP DRAWINGS FROM TDOT APPROVED VENDOR. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED STRUCTURE SIZES FOR PIPE SIZES AND ANGLES AS SHOWN ON THE PLANS. A CONCRETE TOP SLAB SHALL BE PROVIDED AS REQUIRED.



SECTION B-B



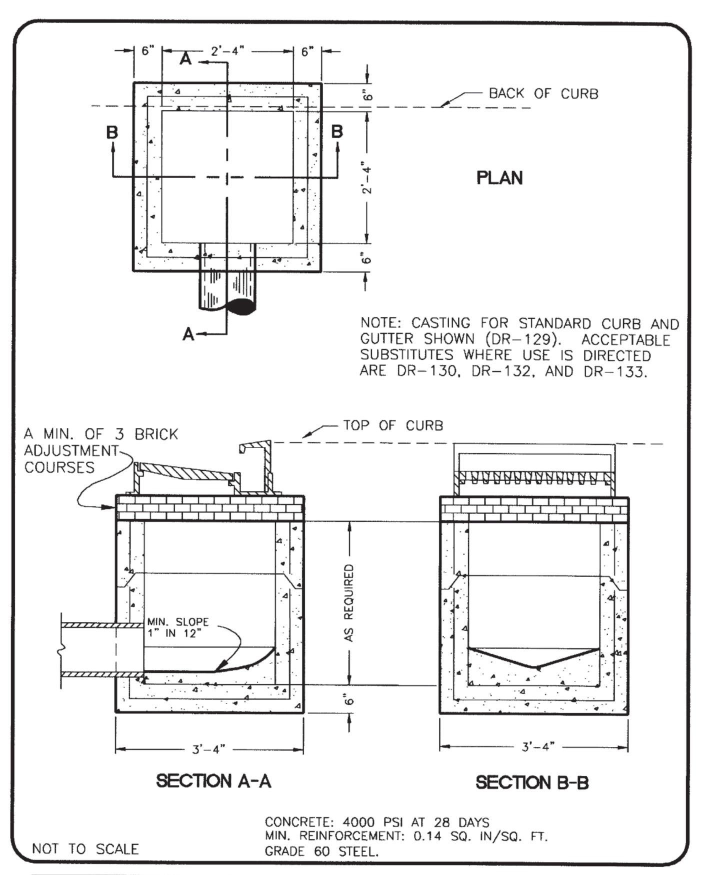
PLAN

STABILIZED CONSTRUCTION ENTRANCE

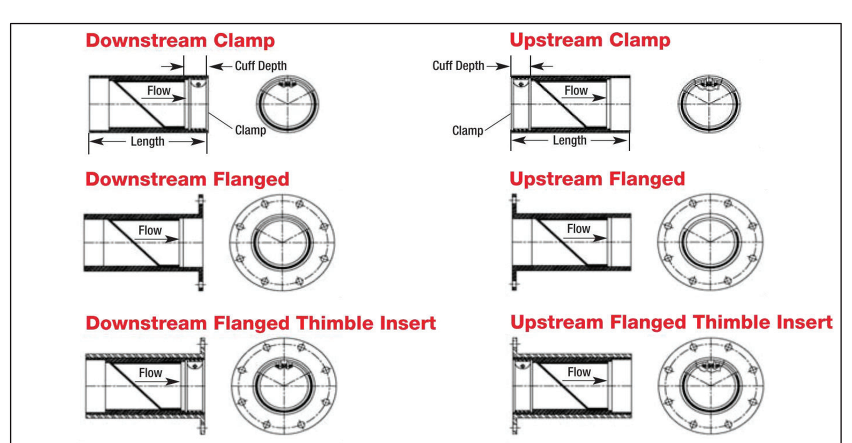
NOT TO SCALE

TCP-03
METRO NASHVILLE STORMWATER BMP
VOLUME 4, SECTION 3

NOTE:
CONTRACTOR RESPONSIBLE FOR PROVIDING SHOP DRAWINGS FROM TDOT APPROVED VENDOR.
CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED STRUCTURE SIZES FOR PIPE SIZES AND ANGLES AS SHOWN ON THE PLANS. A CONCRETE TOP SLAB SHALL BE PROVIDED AS REQUIRED.



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	SINGLE INLET (PRECAST)	DWG. NO. DR-105
ASST. DIR. ENG.: [signature] DATE: [illegible] / DIRECTOR: [signature] DATE: 3/14/00		REVISED: 02/08/00



CheckMates® can be made for any pipe I.D. Built to fit in sizes from 3" to 78".

Flange shape and bolt pattern can be customized. Flangeless thimble inserts are available.

CHECKMATE® VALVE

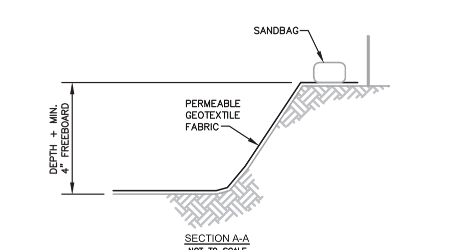
	NOMINAL PIPE SIZE I.D. Inches	Millimeters	OVERALL LENGTH* Inches	Millimeters	NUMBER OF CLAMPS	CUFF DEPTH Inches	Millimeters	BACK PRESSURE RATING** Feet	Meters	WEIGHT lbs	Kg
Low Pressure	3	75	5.1	130	1	1.5	38	5	1.5	1.5	0.7
	4	100	7.9	201	1	1.5	38	5	1.5	1.5	0.7
Standard Pressure	3	75	5.1	130	1	1.5	38	85	26.0	3	1.4
	4	100	7.9	201	1	1.5	38	85	26.0	3	1.5
	5	125	9.5	241	1	1.5	38	83	25.3	4	2
	6	150	11.0	279	1	2.0	51	83	25.3	9	4
	7	175	12.8	325	1	2.0	51	79	24.1	11	5
	8	200	15.2	386	1	2.0	51	79	24.1	13	6
	9	225	15.4	391	1	2.0	51	75	22.9	17	8
	10	250	16.1	409	1	2.0	51	71	21.6	20	10
	12	300	19.8	503	1	2.0	51	68	20.1	37	17
	14	350	25.8	655	1	4.0	102	64	20.0	110	50
	16	400	28.6	726	1	4.0	102	60	18.3	133	52
	18	450	31.0	787	1	4.0	102	56	17.1	143	65
	20	500	42.1	1069	2	8.0	203	53	16.2	223	102
	24	600	47.5	1207	2	8.0	203	45	13.7	304	137
	30	750	54.9	1395	2	8.0	203	38	11.6	500	227
	36	900	62.3	1582	2	8.0	203	30	9.1	828	376
	42	1050	70.6	1793	2	8.0	203	26	7.9	1423	646
	48	1200	79.0	2007	2	8.0	203	23	7.0	1801	817
	54	1350	86.4	2195	2	8.0	203	17	5.2	2700	1225
	60	1500	96.8	2459	2	9.0	229	15	4.6	3315	1504
	72	1800	119.0	3023	3	12.0	305	13	4.0	6100	2767
	78	1950	119.0	3023	3	12.0	305	13	4.0	7000	3176

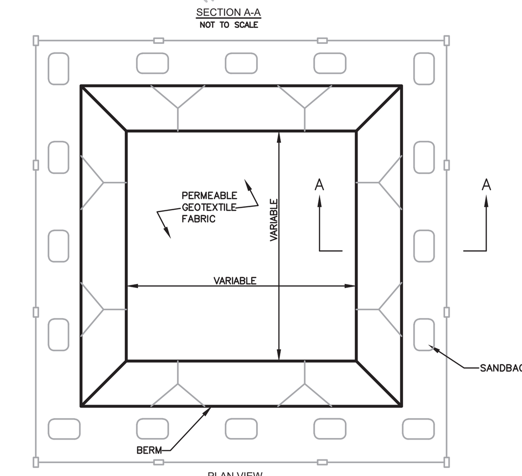
*Shorter lengths available.
**Back pressure measured from pipe invert. Higher back pressure ratings available. Consult factory.

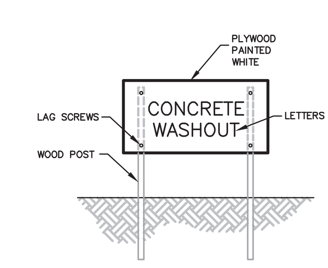
ww.tideflex.com/checkmate

CHECKMATE DETAIL

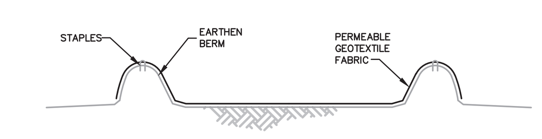
NOT TO SCALE

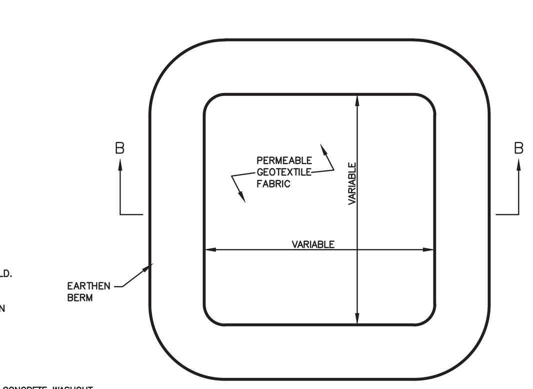






CONCRETE WASHOUT SIGN (OR EQUIVALENT)





NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT.OF THE WASHOUT FACILITY.

EROSION CONTROL PLAN LEGEND: CONCRETE WASHOUT CONCRETE WASHOUT

CONCRETE WASHOUT DETAIL

NOT TO SCALE

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-0970\1-CIVIL ENGINEERING\3-PLAN SHEETS\FINAL SP\0970_DETAILS.DWG
PLOTTED BY BARAKA PATTERSON ON: 4/30/2020 9:14 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 8:19 AM

Gresham Smith

222 Second Avenue South
Suite 1400
Nashville, TN 37201
615.770.8100

CONSULTANT:

RAGAN•SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
Chattanooga 423-490-9400
Nashville 615-244-8591
Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17135-0970

CLIENT:

NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:

MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

EVAN BLAKE FOSTER
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 120457
STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
1	08/30/19	City Comments
2	10/02/19	City Comments

CONSTRUCTION DETAILS

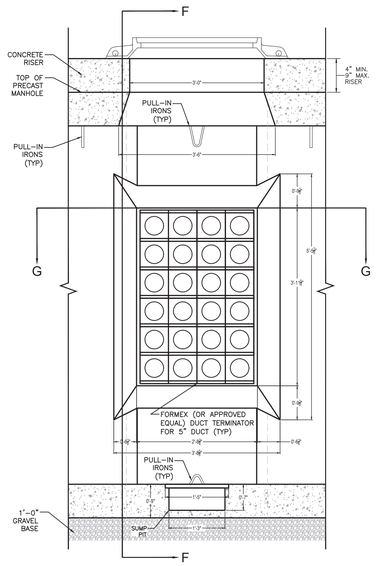
C7.2

PROJECT: 42885.01
DATE: 02.21.2020

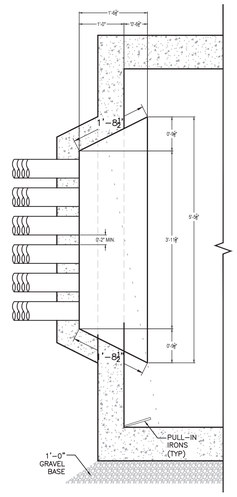
LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF

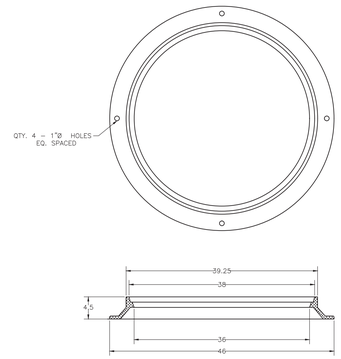
SEE SHEET C7.4 FOR NOTES



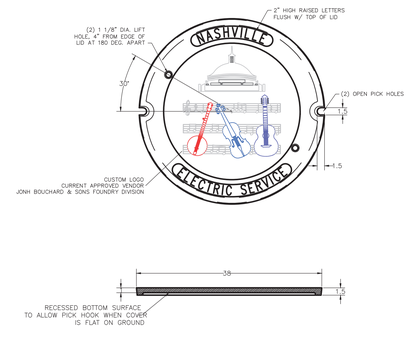
SECTION EE
(TYP BAYOUT)



SECTION FF
(TYP BAYOUT)



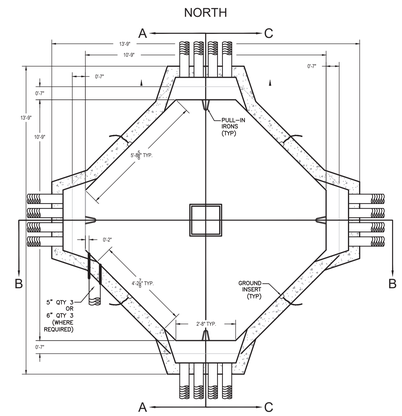
SECTION OF FRAME



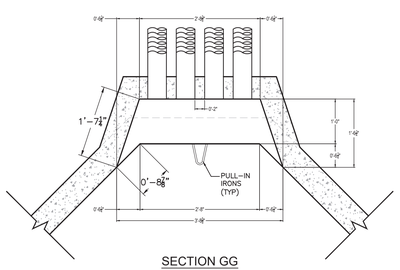
SECTION OF COVER

NOTES: CLASS 35B GRAY IRON
MACHINED BEARING SURFACES
HEAVY DUTY, H20 LOAD RATING
ART WORK ON COVER MUST BE APPROVED BY NES STANDARDS
PICK BARS OR DROP HANDLES WILL NOT BE ACCEPTED

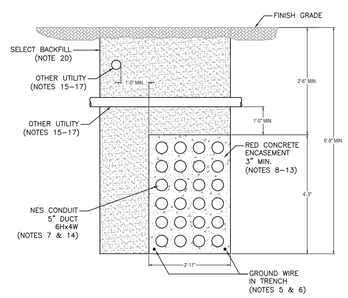
MANHOLE THROAT AND COVER
36" DIAMETER
NES STOCK NUMBER 063000000



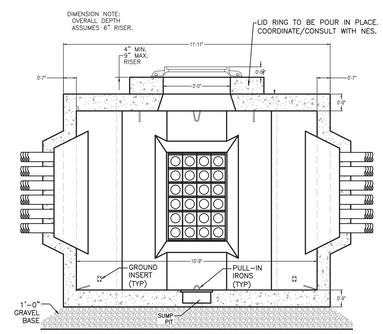
FLOOR PLAN
(4-WAY)
NOT TO SCALE



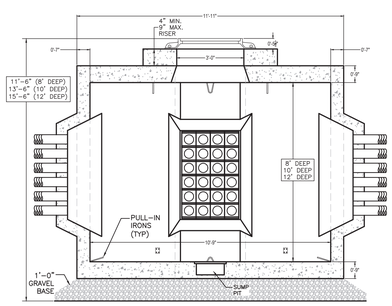
SECTION GG
(TYP BAYOUT)



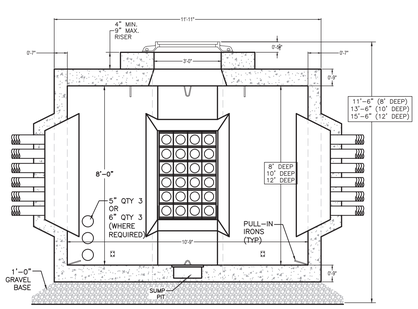
DUCT RUN SECTION (North & South Bayouts)
(5"-6Hx4W)
NOT TO SCALE



SECTION AA
(8' DEEP)



SECTION BB



SECTION CC

APPROVED PRECAST
MANHOLE PART #s

OLDCASTLE
"OC-NES 1107-8 MODIFIED" for 2-WAY (8' DEEP)
"OC-NES 1107-10 MODIFIED" for 2-WAY (10' DEEP)
"OC-NES 1107-12 MODIFIED" for 2-WAY (12' DEEP) "OC-NES 1109-8 MODIFIED" for 3-WAY (8' DEEP)
"OC-NES 1109-10 MODIFIED" for 3-WAY (10' DEEP)
"OC-NES 1109-12 MODIFIED" for 3-WAY (12' DEEP) "OC-NES 1010-8 MODIFIED" for 4-WAY (8' DEEP)
"OC-NES 1010-10 MODIFIED" for 4-WAY (10' DEEP)
"OC-NES 1010-12 MODIFIED" for 4-WAY (12' DEEP)

"OR EQUALS" FROM OTHER PRECAST MANUFACTURERS SHALL BE SUBMITTED FOR APPROVAL BEFORE PART NUMBERS CAN BE ACCEPTED.

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

G:\17135-09701-CIVIL ENGINEERING\-PLAN SHEETS\FINAL SP\0970_DETAILS.DWG
PLOTTED BY BRAXAI PATTERSON ON: 4/30/2020 9:14 AM LAST UPDATED BY BPATTERSON ON: 4/30/2020 8:19 AM

Gresham Smith

222 Second Avenue South
Suite 1400
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Murfreesboro 615-546-6050
ragansmith.com
RSA PROJECT: 17136-0070

CLIENT:

NASHVILLE INTERMEDIARY, LLC

CREED INVESTMENT COMPANY

A DEVELOPMENT PARTNERSHIP BETWEEN:

PORTMAN HOLDINGS

PROJECT:

MOORE BLDG

FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:

ELIAS BLAKE FOSTER REGISTERED ENGINEER NO. 120451 STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
1	08/20/20	CD's Comments

NES DETAILS

C7.3

PROJECT:42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

Drawn By: MRS
Checked By: EBF
Approved By: EBF

DIVISION 3 - CONCRETE

SECTION 03300 - DUCT BANK CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION:
A. This Section includes concrete and related items.
B. Related Work specified elsewhere:
1. Manholes: SECTION 03480 of these Technical Specifications.
2. Duct Banks: SECTION 06300 of these Technical Specifications.

1.02 QUALITY ASSURANCE:
A. Applicable Standards:
1. American Society for Testing and Materials (ASTM):
a. A36 - Structural Steel.
b. A615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
c. C31 - Making and Curing Concrete Test Specimens in the Field.
d. C33 - Concrete Aggregates.
e. C39 - Compressive Strength of Cylindrical Concrete Specimens.
f. C40 - Organic Impurities in Fine Aggregates for Concrete.
g. C42 - Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
h. C88 - Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
i. C94 - Ready-Mixed Concrete.
j. C143 - Slump of Hydraulic Cement Concrete.
k. C150 - Portland Cement.
l. C172 - Sampling Freshly Mixed Concrete.
m. C192 - Making and Curing Concrete Test Specimens in the Laboratory.
n. C231 - Air Content of Freshly Mixed Concrete by the Pressure Method.
o. C309 - Liquid Membrane-Forming Compounds for Curing Concrete.
p. C494 - Chemical Admixtures for Concrete.
q. E96 - Test Methods for Water Vapor Transmission of Materials.
2. American Concrete Institute (ACI):
a. 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
b. 304 - Guide for Measuring, Mixing, Transporting and Placing Concrete.
c. 305 - Hot Weather Concreting.
d. 306 - Cold Weather Concreting.
e. 309 - Guide for Consolidation of Concrete.
f. 318 - Building Code Requirements for Reinforced Concrete and Commentary.
3. National Bureau of Standards (NBS) Specifications for Scales.
4. National Ready-Mix Concrete Association, "Truck Mixer, and Agitator Standards of the Truck Mixer Manufacturers' Bureau."

1.03 SUBMITTALS:
A. Submit as specified by Owner.
B. Include, but not limited to, the following:
1. Grouts.
2. Concrete aggregates.
3. Concrete mixture.
4. Concrete mix design for each slump specified in this SECTION 03300.
5. Concrete mix and specific quarry from which the aggregate was derived shall be submitted to Owner based on testing done by a laboratory approved by Owner in writing.
6. Thermal dry-out curves showing the thermal resistivity as a function of moisture shall be provided to Owner.
7. Contractor shall furnish Owner certified reports of all tests within ten (10) days of taking the samples.
C. Test Reports: Submit as specified by Owner and in this SECTION 03300.

PART 2 - PRODUCTS

2.01 CONCRETE:
A. Materials:
1. Portland Cement Type I or 11:
a. Shall conform to ASTM C150.
2. Aggregate:
a. The maximum aggregate size for use in concrete for duct lines shall be 3/8 inch.
b. Fine Aggregate:
(1) Conform to ASTM C33.
(2) Maintain fine aggregate free of ice and frozen lumps.
c. Coarse Aggregate:
(1) Conform to ASTM C33.
(2) Blast furnace slag will not be permitted.
(3) Maintain coarse aggregate free of ice and frozen lumps.
(4) Grading Requirements:
(a) From 1-inch to No. 4 for all concrete unless otherwise specified.
3. Mixing Water:
a. Only potable water will be acceptable without testing. Expense of testing water shall be paid by Contractor.
b. Non-potable water may be used if it produces concrete with at least 95 percent of the strength of similar specimens of the same mix design made with potable water, subject to approval of qualitative analysis by Owner.
4. Admixtures:
a. Calcium shall not be used.
b. Water Reducing Type:
(1) Conform to ASTM C494, Type A.
(2) Conform to manufacturer's recommendations for use.
(3) Technical assistance of the manufacturer's field representative shall be furnished upon request.
c. Air-Entraining Type:
(1) Conform to ASTM C260.
(2) Conform to manufacturer's recommendations for use.
(3) Technical assistance of the manufacturer's field representative shall be furnished upon request.
d. Color Additive:
(1) The duct bank concrete envelopes shall be dyed red throughout entire concrete encasement to provide a warning to anyone digging into an electrical duct bank. This shall be achieved by mixing red inorganic pigment into the cement during the mixing process. Sufficient quantities of admixtures shall be used to color concrete to the satisfaction of the Owner. Admixtures shall be approved by the Owner.
e. Other Admixtures: Used only with Owner's written concurrence.
(1) Water Reducing, Retarding Type: Conform to ASTM C494, Type D and shall not contain any chloride ions added during manufacture.
B. Laboratory Testing of Materials for Use in Concrete:
1. An approved independent testing laboratory shall be selected and paid by Contractor to perform all required laboratory tests of materials proposed for use in the production of concrete and to determine mix proportions when laboratory trial batches are required.
2. The laboratory shall report the results of the testing and mix designs as follows:
a. Engineer (1 copy).
b. Owner (1 copy).
c. Contractor (copies as required).
d. Concrete supplier (copies as required).
3. Contractor shall deliver representative samples of all proposed concrete materials to the laboratory for the following testing:
a. Fine Aggregate:
(1) ASTM C33 as amended by PART 2, paragraph 2.01.A.
(2) ASTM C40.
(3) ASTM C88.
b. Coarse Aggregate:
(1) ASTM C33 as amended by PART 2, paragraph 2.01.A.
(2) ASTM C88.
c. Mixing water, if other than potable water is proposed for use and in the opinion of the Engineer there is reason to suspect its acceptability:
(1) With the design mix the laboratory shall make two concrete test cylinders using proposed water and two concrete test cylinders using potable water conforming to ASTM C192.
(2) All cylinders shall be tested conforming to ASTM C39. Age of cylinders at test shall be 28 days unless an earlier age is authorized.
d. Air-entraining admixture shall be tested conforming to ASTM C233.
C. Concrete Qualities Required:
1. Compressive Strength:
a. Minimum 28-day strength = 3000 psi for all construction unless otherwise indicated.
2. Slump of concrete shall be 6 inches plus or minus 1 inch unless noted otherwise.
3. Aggregate: Maximum size 3/8 inch.
4. Admixture: Prior written approval required.
5. No air entrainment additives allowed. Maximum air entrainment from mixing is two percent.
D. Mix Proportions:
1. Concrete shall be homogeneous, readily placeable and uniformly workable; proportioned to conform to ACI 211.1.
2. Mix proportions for all concrete unless otherwise specified shall be selected preferably on the basis of field experience; but in the case where sufficient or suitable strength test data is not available, concrete shall be proportioned on the basis of laboratory trial mix design.
a. Field experience using test results within the preceding 90 days with the materials and plant to be employed may be the basis of mix proportioning provided that not less than 30 consecutive satisfactory compressive strength tests on concrete using the proposed materials with a similar mix are available. A compressive strength test is defined as the average 28-day compressive strength of two companion cylinders made conforming to ASTM C172 and ASTM C3 1 and tested conforming to ASTM C39. The standard deviation of such tests shall be computed as a basis for design of the mix. The design average strength shall exceed the specified strength in accordance with the following formulae:
(1) When standard deviation is less than 500 psi, Design Average Strength = Specified Minimum Strength + 1.343 x Standard Deviation.
(2) When standard deviation is greater than 500 psi, Design Average Strength = Specified Minimum Strength -500 + 2.326 x Standard Deviation.
(3) Submit previous test data, calculated standard deviation, and the proposed mix proportions to the Engineer for approval prior to placing concrete.
b. When laboratory trial batches are used as a basis for determining mix proportions, all such work shall be performed by the laboratory as specified in this PART "Laboratory Testing of Materials for Use in Concrete."
(1) Laboratory trial batches shall be used to establish a water-cement ratio compression strength curve with at least three points, each representing the strength of a separate trial batch. At least one point shall be above and one below the strength required. Each point on the curve shall represent the average of at least three specimens tested at 28 days or an earlier age when approved by Engineer. The slump and air content shall be at the maximum limits specified in this PART "Concrete Qualities Required."
(2) A point on the water-cement ratio compressive strength curve shall be selected that will provide an average strength at least 1200 psi greater than the specified minimum strength.
(3) Laboratory reports establishing mix proportions shall be sent to the Engineer, and his approval obtained prior to placing all concrete.
E. Measurement of Materials:
1. General Requirements:
a. Conform to ACI 304.
b. Measure materials within one percent by weight for aggregates and cement, and within 1-1/2 percent by volume or weight for water.
2. Apparatus:
a. Beam or springless dial-type scale conforming with NBS - "Specifications for Scales."
b. Volumetric measurement of water shall be performed with an approved automatic valve.
F. Mixing and Delivery:
1. Conform to ACI 304.
2. Cement temperature when added to mix shall not exceed 170 degrees F.
3. Batch Plant Mixer:
a. Charge with 5 percent to 10 percent of the mixing water both in advance and after the addition of aggregates and cement.
b. Charge with remaining water uniformly with the other materials.
c. Avoid charging in excess of manufacturer's rating.
d. Discharge mixed concrete completely prior to recharging.
e. Mixing Time:
(1) Start immediately when all ingredients except the last of the water are in the mixer.
(2) Minimum mixing time shall conform with mixer manufacturer's instructions, but not be less than the following:

Capacity of Mixer Cubic Yards	Minimum Time of Mixing, Minutes
1 or less	1 minute
2	1 minute, 15 seconds
3	1 minute, 30 seconds
4	1 minute, 45 seconds
5	2 minutes
6	2 minutes, 15 seconds

Add 15 seconds' mixing time for each additional cubic yard of concrete.

4. Mixing of Concrete at Plant Off Site:
a. Mix concrete in central mixer or truck mixer. Transport in truck mixer turning at agitation speeds only.
b. Water added to concrete having a slump below the specified minimum shall be at Contractor's risk. If the water added produces a slump greater than the specified maximum, the concrete will be rejected. If water is added the concrete shall be remixed for a minimum of 25 revolutions.
c. Truck mixer shall conform to "Truck Mixer and Agitator Standards of the Truck Mixer Manufacturers Bureau," of the National Ready-Mix Concrete Association.
d. Ready-mixed concrete shall be produced and delivered conforming to ASTM C94 as applicable.
e. Contractor shall furnish Owner with a concrete delivery ticket for each load of concrete. The ticket shall have the following information recorded:
(1) Ticket number.
(2) Time batched.
(3) Time arrived on jobsite.
(4) Amount of concrete (by volume).
(5) Mix number.
(6) Amount of all water added at Site by Contractor.
(7) Number of revolutions on the truck's revolution counter before batching and after placement is completed.
(8) Truck number.
(9) Truck driver's name.
(10) Types and quantities of admixtures added to the batch.
(11) Slump of concrete.

2.02 CURING AGENT:
A. Liquid membrane forming compound conforming to ASTM C309, Type 1. ASTM C309 Type 2 shall be used as specified in PART 3 "Hot Weather Concreting."

PART 3 - EXECUTION

3.01 PREPARATION FOR CONCRETE PLACEMENT:
A. Cutting and Bonding to Existing Concrete:
1. Cutting Existing Concrete:
a. Use methods and equipment that will avoid damage to adjacent parts of the structure from heavy blows or vibration.
b. Cut existing concrete with power concrete saw where possible to prevent spalling and chipping and to form neat straight edge.
c. Remove all loose or cracked pieces resulting from cutting existing concrete, leaving only sound, undamaged concrete adjacent to new work.
d. Leave access opening edges with a neat, true grout surface to the opening size indicated.
e. Cut reinforcing steel with sufficient length remaining (approximately 30-bar diameters) for bending and lapping into new construction.
2. Bonding to Existing Concrete:
a. Roughen concrete by use of a pneumatic chipping hammer or other approved means.
b. Thoroughly clean the concrete surface and apply the bonding agent. Place the fresh concrete after the bonding agent becomes tacky.

3.02 PLACING OF CONCRETE:
A. Conventional Placing:
1. General Requirements:
a. Conform to ACI 304.
b. Bonding surfaces shall be clean, free of laitance and foreign materials.
c. Face horizontal bonding surfaces with 1-inch-thick coat of fresh "grout for bonding." Wet all other surfaces.
d. Place concrete on properly prepared and unfrozen subgrade and only in dewatered excavation and forms.
e. Use forms for all concrete except where otherwise indicated or specified.
f. Do not place concrete that has partially hardened or has been contaminated by foreign materials.
g. Prevent mud or foreign materials from entering the concrete or forms during placement operations.
2. Conveying:
a. Convey concrete from the mixer and deposit in place by methods which will prevent the segregation or loss of materials.
b. Equipment for chuting, pumping, and pneumatically conveying concrete shall be of such size and design as to provide a practically continuous flow of concrete at the delivery end.
c. Aluminum conveying equipment shall not be used.
3. Depositing:
a. Place concrete in continuous horizontal lifts not to exceed 18-inches.
b. Maximum free drop of concrete shall be 5 feet in duct banks 10 inches or less in thickness with 1-foot additional drop allowed for each inch of duct bank thickness over 10 inches, with a maximum drop of 10'-0".
c. When moisture barrier is used, keep lapped joints closed and take precautions to avoid puncturing the barrier.
4. Consolidation of Concrete:
a. Consolidate concrete in conformance with ACI 309. Characteristics and application of concrete vibrators shall be as set forth in Table 5.1.4 thereof.
b. Provide an adequate number of vibrators of sufficient capacity to keep up with the maximum rate of concrete placement. Keep on hand adequate standby equipment in good operating condition.
c. Vibrate concrete only until the concrete is thoroughly consolidated and the voids filled as evidenced by the leveled appearance of the concrete at the exposed surface and the embedment of the surface aggregate.
d. Insert internal vibrators vertically to the fill depth of the layer being placed and into the previous layer. Do not drag vibrators through the concrete. Insert and withdraw vibrator slowly with the vibrator running continuously so that no hole will be left in the concrete. Do not flow concrete from one location to another by use of a vibrator.
e. Consolidate concrete layer to full depth when using a surface vibrator. Use thinner layers or more powerful vibrator if necessary to achieve complete consolidation.
f. Use form vibrators only where sections are too thin or where sections are inaccessible for internal vibrators.
5. Time Requirements:
a. Place concrete at a sufficient rate to assure that lifts below have not taken initial set before fresh concrete is deposited.
b. Place concrete within 30 minutes after mixing. This period may be extended to 1 hour and 30 minutes provided that the combined air temperature, relative humidity and wind velocity are such that the plasticity of the fresh concrete is satisfactory for placement and consolidation and that the specified mixing water is not exceeded. Concrete which has partially set shall not be retempered but shall be discarded.
6. Placing Concrete at Joints:
a. Bed horizontal joints with 1 inch of grout for bonding.
b. Take precautions to ensure tight, well-bonded construction joints with no air pockets or voids.
c. Take special precautions avoid bending or displacing waterstop while placing concrete around it.
d. Delay construction at a joint a minimum of 16 hours where placement is continued past joint except where otherwise indicated.

3.03 FINISHING:
A. Surface Finish:
1. All concrete surfaces shall be smooth and free from defects. Metal ties, where used, shall be removed and the resulting holes filled with mortar. Surface finish requirements shall be as follows:
a. Tops of encased duct lines over which backfill is to be placed shall be wood floated.

3.04 CURING: Cure all concrete by one of the following methods:
A. Curing operations shall be started as soon as the concrete has attained initial set.
B. Using polyethylene sheets applied in full contact with surfaces.
C. Concrete for encased duct lines shall be sufficiently cured to avoid compromise of the installation, whether backfilled with fluidized thermal backfill or with soil backfill. After curing, motor traffic is allowed to pass over the duct lines provided the asphalt road base has been installed over the duct lines, or non-skid steel plate has been installed over the duct line.
D. Curing of concrete during hot or cold weather shall conform to this PART "Hot Weather Concreting" and "Cold Weather Concreting."

3.05 HOT WEATHER CONCRETING:
A. When the temperature is 90 degrees F or above, or is likely to rise above 90 degrees F within the 24-hour period after concrete placement; or when there is any combination of high air temperature, low relative humidity and wind velocity which would impair concrete strength or quality, follow the recommendations of ACI 305.
B. Concrete shall have a maximum temperature of 85 degrees F during placement.
C. Dampen subgrade and forms with cool water immediately prior to placement of concrete.
D. Protect freshly placed concrete immediately after placement so that the rate of evaporation as determined by ACI 305 (Figure 2.1.5) does not exceed 0.2-pound per square foot per hour.
E. Protect concrete with suitable insulation if rapidly decreasing nighttime temperatures occur, which would cause thermal shock to concrete placed during warm daytime temperatures.
F. Protect the concrete with temporary wet covering during any appreciable delay between placement and finishing.
G. Begin curing unformed surfaces immediately after finishing and continue for 24 hours. Curing shall consist of application and maintenance of water saturated material to all exposed surfaces; horizontal, vertical and otherwise. After the 24-hour interval, continue curing, using one of the following methods:
1. Moist curing for six days.
2. Application of one coat of curing compound conforming to ASTM C309, Type 2.
3. Application and maintenance of curing paper or heat-reflecting plastic sheets for six more days.
H. Begin curing formed concrete immediately after placing. Curing shall consist of keeping forms continuously wet for 24 hours. Thereafter, continue curing using one of the following methods:
1. Loosen forms and position soaker hose so that water runs down along concrete surfaces. Continue for six days.
2. Strip forms and apply curing compound conforming to ASTM C309, Type 2. Do not allow concrete surfaces to dry prior to application of curing compound.

3.06 COLD WEATHER CONCRETING:
A. When the temperature is 40 degrees F or is likely to fall below 40 degrees F during the 24-hour period after concrete placement, follow the recommendations of ACI 306 to prevent loss of concrete strength or quality.
B. Minimum temperature for concrete as mixed shall be as indicated on lines 2,3 and 4 of Table 1.4.1 of ACI 3 06. Maximum temperature for concrete as mixed shall be 10 degrees F greater than the corresponding minimum temperature.
C. Place and maintain concrete so that its temperature is never less than the temperature indicated on line 1 of Table 1.4.1 of ACI 306. Maintain the required temperature for the time duration indicated on Table 1.4.2 of ACI 306.
D. Monitor temperature of concrete in place at corners or edges of formwork as applicable.
E. Do not expose concrete to carbon monoxide or carbon dioxide fumes from heaters or engines. Oil or coke burning salamanders will not be permitted. Personnel shall be present at all times to maintain safe, continuous operation of heating system.
F. Control temperature and humidity of protected concrete so that excessive drying of concrete surfaces does not occur.
G. Calcium chloride will not be permitted as a concrete accelerator or to thaw frozen subgrade prior to concrete placement.
H. The maximum allowable temperature drop during the first 24-hour period after protection is discontinued shall be as indicated on line 5 of Table 1.4.1 of ACI 306.

3.07 LOW STRENGTH CONCRETE:
A. Low-Strength Concrete:
1. Defined as concrete whose 28-day test (average of two cylinder breaks) is less than the minimum 28-day strength required.
2. Remove and replace with acceptable concrete when the quality and location of the low-strength concrete is such that Engineer considers the strength or durability of the structure is impaired and so orders.
B. Potentially Low-Strength Concrete: Defined as concrete whose 7-day test is less than 70 percent of the specified minimum 28-day compressive strength.
C. Construction delays caused by low-strength or potentially low-strength concrete shall not relieve Contractor from responsibility for late completion even though extensions of time may be granted.

3.08 TESTING:
A. Field Testing of Concrete and Making of Concrete Test Cylinders:
1. Contractor shall furnish test equipment, test cylinder molds, and trained personnel to perform all required field tests, make the required concrete test cylinders and deliver test cylinders to the testing laboratory. The prescribed tests shall be made in the presence of or with the concurrence of Owner.
2. Concrete sampling for tests and cylinder making shall be done conforming to ASTM C172.
3. Perform the following tests:
a. Prepare test cylinders conforming to ASTM C31, with not less than one set of cylinders (four cylinders) from each day's placement for each 50 cubic yards or fraction thereof.
b. Slump Test conforming to ASTM C143.
c. Air Content Test conforming to ASTM C231.
d. Discard concrete used for slump and air tests.
e. Slump and Air Test results shall be furnished to the Testing Laboratory for inclusion in the Cylinder Test Reports.
B. Laboratory Testing of Concrete During Construction:
1. An independent testing laboratory will be selected and paid by Contractor to perform the required laboratory tests and statistical evaluations of concrete being used in the work.
2. Laboratory will cure and test concrete cylinders conforming to ASTM C192 and C39, testing one cylinder at seven days of age and two at 28 days of age. The remaining cylinder will be held to verify test results, if needed.
3. Contractor shall have the right to observe all phases of concrete cylinder curing and testing. Should Contractor observe any deviations from the prescribed testing procedures that he considers detrimental to concrete strength test results, he shall immediately notify Owner in writing.
4. Contractor shall make arrangements with the testing laboratory to receive copies of test reports. The cost of providing a maximum of two copies of each report will be paid by Owner.
5. Should the statistical data indicate an unacceptable combination of average strength and standard deviation, Contractor shall take immediate corrective action.
6. Should the statistical data indicate an excessive margin of safety, the concrete mix may be modified subject to Owner's approval.

SECTION 03480 - PRECAST CONCRETE MANHOLES

PART 1 - GENERAL

1.01 SUMMARY:
A. This Section covers furnishing and installation of precast concrete structures to include utility manholes.
B. Related Work specified elsewhere:
1. Concrete: SECTION 03300 of these Technical Specifications.

1.02 REFERENCES:
A. Applicable Standards:
1. American Society For Testing and Materials (ASTM):
a. A48 - Gray Iron Castings.
b. A615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
c. C150 - Portland Cement.
d. C260 - Air-Entraining Admixtures.
e. C361 - Reinforced Concrete Low-Head Pressure Pipe.
f. C478 - Precast Reinforced Concrete Manhole Sections.
g. C595 - Blended Hydraulic Cements.
h. C923 - Resilient Connectors.
2. Federal Standards (FS):
a. SS-S-00210A - Sealing Compound, Preformed Plastic, for Expansion Joints and Pipe Joints.

1.03 SUBMITTALS :
A. Submit as specified by Owner.
B. Shop drawings to include, but not limited to, the following:
1. Plans and/or elevations locating and defining all materials furnished by the manufacturer.
2. Sections and details showing connections, cast-in-items, and their relation to the structure.
3. Description of all loose, cast-in, and field hardware.
4. Erection sequences and handling requirements.
C. Submit for approval, design calculations of splice vaults performed by a registered professional engineer experienced in precast concrete design.
D. Test Reports:
1. Certified tests and reports.
2. Furnish three (3) copies of reports covering test results.

1.04 DELIVERY, STORAGE. AND HANDLING:
A. Do not deliver precast sections to Site until concrete has attained at least 80% of specified design strength.
B. Precast concrete members shall be lifted and supported during manufacturing, stockpiling, transporting, and erection operations only at the lifting or supporting point, or both, as shown on shop drawing.
C. Transportation and on-Site handling shall be performed with acceptable equipment and methods, as well as by qualified personnel.
D. Care shall be taken to avoid tensional stresses during transportation.
E. Keep from contact with adjacent sections during and after delivery.
F. Store all precast units off ground and on skids.
G. Place units so that identification markings are discernible. Stack so that lifting devices are accessible and undamaged.

PART 2 - PRODUCTS

2.01 MATERIALS:
A. Contractor shall be responsible for the design, construction, installation, and shipment of the vaults required to their appropriate locations. Each vault shall be sized as shown on Plan Drawings.
B. Manholes shall be structurally designed to handle HS-20 loading.
C. Concrete for manholes shall be dyed red throughout.
D. If a multi-sectioned vault is deemed necessary by the fabricator, provisions shall be made so that the joint formed by the sections is watertight. Joints shall also be positioned such that they do not interfere with the eyelets and duct entrance bells shown on Plan Drawings.
E. Concrete requirements shall conform to ASTM C478.
1. Portland Cement Type I or IP. Type I shall conform to ASTM C150. Type IP shall conform to ASTM C595.
a. Fly ash shall not be used as the pozzolan.
F. Concrete Aggregates: Fine and coarse aggregates shall conform to the Specifications for Concrete Aggregates, ASTM C33, latest version. The nominal maximum size for concrete aggregate shall be three quarters inch (3/4") No. 67.
G. Admixture: Chemical compounds shall be used as an admixture to control plastic shrinkage, improve workability and entrain five to seven percent air, by volume, of the concrete as discharged from the mixer. The admixtures shall contain no chlorides, fluorides or nitrates and shall be formulated by the manufacturer for the job area and weather conditions to control setting time. Admixtures shall conform to ASTM Specifications C260 and C494, latest version. Water reducing and retarding admixtures: If approved in writing by Owner, the mix shall conform to ASTM C494, Type A or D, except that calcium chloride shall not be used.

2.02 REINFORCING STEEL:
A. Reinforcing bars shall conform to the latest version of ASTM Standard Specifications for Deformed Billet Steel Bars for Concrete Reinforcement, Designation A615, Grade 60. If requested by Owner, Contractor shall submit, within three (3) days following such request, at no cost to Owner, laboratory reports on the reinforcing steel prepared by a testing laboratory approved by Owner in writing.
B. Steel reinforcing bars schedule shall be supplied to Owner. Measurements made in placing the bars shall be to the centerline of the bars.
C. Before the reinforcing bars are placed, the surfaces of the bars and the surfaces of any metal bar supports shall be cleaned of heavy, flaky rust, loose mill scale, dirt, grease, or other foreign substances as can be removed by rubbing moderately with a gloved hand. After being placed, the reinforcing bars shall be maintained in a clean condition until they are completely embedded in the concrete.
D. Reinforcing bars shall be accurately placed and secured in position so that they will not be displaced during the placing of the concrete, and special care shall be exercised to prevent any disturbance of the reinforcing bars in concrete that has already been placed. Precast concrete blocks or other positive spacing measures shall be used for supporting reinforcing bars and thus ensuring clearance between the reinforcing steel and the side walls.
E. Reinforcement shall not be spliced unless approved in writing by Owner. Splices shall be in accordance with ACI 12.14 and 12.15.
F. Lateral ties shall be secured to vertical reinforcement with wire ties. Welded connections shall not be allowed.
G. Concrete reinforcing rods shall not form a closed loop around any individual conduit penetrations of the end walls. Contractor shall submit for Owner's review and approval reinforcing rod design prior to the start of vault fabrication.

2.03 MANHOLES
A. Approved Manufacturers:
1. Oldcastle Precast, Inc.
a. 2-Way Manhole (8-ft inside height): Cat. No. OC-NES 1107-8 Modified
b. 2-Way Manhole (10-ft inside height): Cat. No. OC-NES 1107-10 Modified
c. 2-Way Manhole (12-ft inside height): Cat. No. OC-NES 1107-12 Modified
d. 3-Way Manhole (8-ft inside height): Cat. No. OC-NES 1109-8 Modified
e. 3-Way Manhole (10-ft inside height): Cat. No. OC-NES 1109-10 Modified
f. 3-Way Manhole (12-ft inside height): Cat. No. OC-NES 1109-12 Modified
g. 4-Way Manhole (8-ft inside height): Cat. No. OC-NES 1010-8 Modified
h. 4-Way Manhole (10-ft inside height): Cat. No. OC-NES 1010-10 Modified
i. 4-Way Manhole (12-ft inside height): Cat. No. OC-NES 1010-12 Modified
2. Approved equivalent

2.04 MANHOLE BAY-OUTS
A. Bay-outs shall be constructed as shown on plans.
B. Approved Manufacturers for standard bayouts:
1. Oldcastle Precast, Inc.
a. Part No. OC-NES-BO

2.05 PULLING IRONS AND EYELETS:
A. Pulling irons and eyelets shall be placed as shown on Standard Manhole Detail Drawings.
B. The cable pulling attachment points shall be capable of supporting 6,000 lbs. tension.
C. Typical loading criteria for pulling irons and eyelets shall be shown on the Construction Documents provided by Contractor.

2.06 MANHOLE GRADE RINGS. RINGS AND COVERS:
A. Manhole grade rings shall be poured in place.
B. Unless otherwise called for, the total height of vault grade rings shall be a minimum of 4-inches and a maximum of 9-inches.
Grade rings shall have a minimum inside diameter of thirty-six inches.
C. All grade rings, vault rings and covers shall be able to withstand AASHTO H-20 traffic loading.
D. Manhole covers shall be Type "C" (Diamond Hatch Pattern) in accordance with Owner's standard cover, see plans for additional requirements.
1. Manufacturers:
a. John Bouchard and Sons - Catalog No. 1133NES
b. East Jordan Iron Works - Catalog No. 1822
c. Approved equivalent

PART 3 - EXECUTION

3.01 EXAMINATION:
A. General Requirements:
1. Examine each precast section, flat top slab, and appurtenances upon arrival at the Work Site for cracks and other unsightly imperfections or structural defects. Notify Owner in the event that defects have occurred.

3.02 PREPARATION:
A. Waterproofing:
1. Repair all cracks, holes, and voids.

3.03 INSTALLATION:
A. Precast Sections:
1. Set in position in accordance with the manufacturer's erection drawings.
2. Set each manhole riser section plumb. Use sections of various heights to bring ring and cover to proper grade, with total ring height not to exceed 9". Join manhole sections using O-rings.
3. All joint surfaces shall be clean, dry, and warm during installation.
4. Where mortar joints are used, set each section in a 1-inch minimum full bed of mortar. If flexible gaskets are used, prime entire joint on both barrel sections prior to placement of gasket material.
5. Sections shall be properly aligned and leveled as required by approved shop drawings.
6. Fill all lifting holes and other imperfections with mortar. Grout joints inside and out.

DIVISION 6 - DUCT BANK SYSTEMS

SECTION 06100 - CONDUIT AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY:
A. This Section includes furnishing and installing of all conduit, fittings, and accessories as specified or indicated.
B. The Plan Drawings define the size and type of each conduit. These Technical Specifications define the type of all conduit.
C. Related Work specified elsewhere:
1. Site Work: DIVISION 312316, 312323, 312500, 311723, 318000, 321216, 321313, 321540 of these Technical Specifications.
2. Concrete: DIVISION 3 of these Technical Specifications in Appendix A.
3. Duct Bank: SECTION 06300 of these Technical Specifications in Appendix A.

1.02 REFERENCES :
A. Applicable standards (conform to all standards applicable to each item utilized) shall be latest revisions, supplements, and amendments to the following:
1. American Society for Testing and Materials (ASTM):
a. F512 - Smooth-Wall Poly(Viny1 Chloride) (PVC) Conduit and Fittings for Underground Installation.
b. F1668 - Guide for Construction Procedures for Buried Plastic Pipe.
2. Federal Specifications:
a. W-C-1094A - Conduit and Conduit Fittings, Plastic, Rigid.
3. Nation Electrical Safety Code, Current Edition
4. National Electrical Manufacturers Association (NEMA):
a. TC 2 - Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80).
b. TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.
c. TC 6 - PVC and ABS Plastic Utilities Duct for Underground Installation.
d. TC 9 - Fittings for ABS and PVC Plastic Utilities Duct for Underground Installation.
5. National Fire Protection Association (NFPA):
a. 70 - National Electrical Code.
6. Underwriters Laboratory (UL):
a. 467 - Grounding and Bonding Equipment.
b. 651 - Schedule 40 and 80 Rigid PVC Conduit.
c. 651A - Type EB and A Rigid PVC Conduit and HDPE Conduit.

1.03 COMPLIANCE SUBMITTALS:
A. Submit as specified by Owner.
B. Include, but are not limited to, catalog cuts.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:
A. Electrical Plastic Tubing (EPT), Thin-Wall (EB) and Schedule 40 Conduit (EPC-40):
1. Carlon Division, Lamson & Session Company.
2. CertainTeed Corp.
3. Condux International, Inc.
4. Others approved by Owner.
B. Grounding Conductor (4/0AWG 7STR Bare Hard Drawn ASTM B8):
1. Southwire
2. Others approved by Owner.

2.02 DESIGN REQUIREMENTS:
A. Sizes of conduit, fittings, grounding and accessories as indicated on the Plan Drawings and by the Construction Documents or required by applicable standards.
B. Contractor shall furnish equipment and materials meeting the specified ratings and performance at the altitude and ambient temperatures specified.
C. Conduit Temperature:
1. Contractor shall expose all conduit and fittings to the same temperature conditions for a reasonable length of time before assembly.
2. Precaution - due to expansion and contraction of the conduit of one and one-half inches (1-1/2") per one hundred feet (100') for every 20°F change in the temperature, Contractor shall allow extra conduit footage at each tie-in for contraction when the conduit temperature is higher than that of the earth; or extra room for expansion if the converse condition exists.

2.03 CONDUIT:
A. Fabricated from self-extinguishing high-impact polyvinyl chloride designed for aboveground and underground installations.
B. Fittings and accessories fabricated from same material as conduit.
C. Solvent-cement-type joints as recommended by manufacturer.
D. Inside diameter no less than that of rigid steel conduit.
E. Dielectric strength a minimum of 400 volts per mil.
F. Rated and labeled for use with 90-degree C rated conductors.
G. Type EB conduit shall be used in 5-inch conduit and smaller.
H. Type EPC schedule 40 heavy-wall rigid conduit shall be used for 6-inch conduit and larger and shall conform to NEMA W-C-1094A Type 11.
I.Subject to prior approval from the inspector Schedule 40 conduit may be used on bends.

2.04 CONDUIT STORAGE AND TRANSPORTATION
A. Contractor shall cover with weatherproof covering any conduit that is to be stored outdoors for more than fourteen (14) days. Contractor shall cap ends of conduit for storage.
B. Contractor shall provide support for the full length of the conduit when transporting or storing long lengths (20'). Contractor shall not permit unsupported overhang.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS:
A. Location:
1. Install conduit as near as possible to the routing indicated on contract drawings. The Owner's Representative shall be notified of any deviations from indicated routing.
2. Shift locations as required to avoid interference with other equipment. Coordinate relocation with other work in area.
B. Furnish conduit in sizes indicated on contract drawings.
C. Cap all conduits after cleaning where conduits are to be left empty by this contract.
D. Carefully ream ends of all conduit lengths after cutting to eliminate sharp burrs.

3.02 CAST-IN-CONCRETE INSTALLATION:
A. Install where specified or indicated on the Plan Drawings and in Contract Documents.
B. Install concrete per SECTION 03300 and SECTION 06300 of these Technical Specifications.
C. Tie securely in place to prevent movement when concrete is poured.
D. Cap exposed ends of all conduits before concrete is poured.
E. Clean out all conduits immediately after concrete work is finished.

3.03 CONDUIT FITTINGS: Install as specified, indicated, or necessary.

SECTION 06300 - DUCT BANKS

PART 1 - GENERAL

1.01 SUMMARY:
A. This Section includes the following:
1. Underground duct systems consisting of banks of nonmetallic ducts encased in concrete.
2. All necessary earth and rock excavation and backfill.
3. Removal and disposal of all excess excavation material.
B. Related Work specified elsewhere:
1. Site Work: DIVISION 312316, 312323, 312500, 311723, 318000, 321216, 321313, 321540 of these Technical Specifications.
2. Duct Bank Concrete: DIVISION 3 of these Technical Specifications in Appendix A.
3. Conduit and Accessories: SECTION 06100 of these Technical Specifications in Appendix A.

1.02 COMPLIANCE SUBMITTALS:
A. Submit as specified.
B. Include, but are not limited to, catalog cuts.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:
A. Duct Spacers:
1. Underground Devices.
2. Carlon Electrical Products.
3. Formex.
B. Mule Tape Pull Line:
1. Greenlee Polyline
2. AANCO Dandy.
3. Others as approved by Owner.

2.02 DUCTS:
A. As specified in SECTION 06100 of these Technical Specifications.
B. Provide with all necessary end bells, couplings, offset couplings, elbows, plugs, and other fittings.
C. All ducts shall be sized as indicated on Plan Drawings.
D. Provide prefabricated, interlocking, plastic duct spacers and caps for duct spacing as specified or indicated on Plan Drawings.

2.03 CONCRETE: Concrete shall be furnished as specified in DIVISION 3 of these Technical Specifications and as indicated elsewhere in the Contract Documents.

PART 3 - EXECUTION

3.01 EXCAVATION: Perform excavations as specified in Section 312316 of these Technical Specifications.

3.02 INSTALLATION:
A. Duct Banks:
1. Ducts:
a. Assemble as follows:
(1) Contractor shall make a square cut and remove all burrs. Contractor shall bevel the inside edge such that a ridge does not occur that could damage the power cable jacket, fiber optic or ground continuity conductor.
(2) Contractor shall wipe all foreign matter off the sockets of the fittings and the edges of the conduit with clean cloth.
(3) The minimum radius allowed, except at the termination structure, shall be fifty feet (50') unless otherwise approved in writing by Owner or shown on approved Plans.
(4) Use spacers to maintain a minimum horizontal and vertical separation of 2" between 5" duct and 3" between 6" duct. Maximum longitudinal distance between spacers for PVC duct shall be five feet.
(5) Stagger joints in adjacent ducts.
(6) Make all joints watertight by application of joint sealer compound furnished by duct manufacturer.
(7) Do not put reinforcing steel or other ferrous material between individual ducts.
(8) Wood shall not be used in the concrete encasement or placed between individual ducts.
(9) Rebar shall be allowed for use to pin spacers in place on the outside of the duct bank only.
b. Conduit solvent-cemented joints:
(1) Contractor shall join all joints per manufacturer's recommendations. The PVC cement shall be obtained from the conduit manufacturer. Thinners are not acceptable.
(2) Contractor shall apply a liberal and uniform coat of cement to the conduit for a length equal to the depth of the socket. Also, Contractor shall apply sufficient cement to wet the socket of the fitting. Contractor shall avoid excess cement on the fitting, as it is wiped into the joint and tends to weaken the conduit. Contractor shall not use plastic bristle brushes.
(3) Contractor shall slip conduit into the socket of the fitting with a slight twist until it bottoms. Contractor shall hold the joint for fifteen (15) seconds so the conduit does not push out of the fitting. Contractor shall not twist or drive the conduit after the insertion is complete.
(4) Contractor shall cure the joined members for at lest five (5) minutes before disturbing or applying stress to the joint. After this initial cure, care must be exercised in handling to prevent twisting or pulling the joint. In damp weather, Contractor shall increase this interval to allow for slower evaporation of the solvent. Where possible, Contractor shall assemble all conduit above ground and allow it to lay undisturbed while curing before lowering it into the ditch.
(5) Contractor shall wipe off the excess cement left on the outer shoulder of the fitting.
(6) Another fitting or section of conduit may be added to the opposite end within two (2) or three (3) minutes, if care is exercised in handling so that the strain is not placed on the previous assembly.
(7) Contractor shall assemble above ground, any joint included in a section of conduit to be bent in the trench, and allow it to lay undisturbed for at least two (2) hours before installation. In cases where a plastic connection is made with the union under stress due to misalignment or other factors, Contractor shall secure such work with stakes to relieve stress on the joint until the conduit is backfilled or encased.
(8) To minimize accidental mechanical damage, the conduit in an open trench shall be exposed for a period no longer than is absolutely necessary and for maximum on one (1) day unless otherwise approved in writing by Owner.
c. Securely tie overall at five-foot intervals.
d. After assembly, align ducts so that they do not vary from the drawings more than four inches in the horizontal or vertical plane.
e. Provide all duct bank terminations with end bells terminators.
f. Seal all exposed ends watertight with a plastic cap or plug at the end of each day's work, when work has to be interrupted, when duct might be submerged in water, and in stub-outs.
2. Concrete:
a. Place duct bank concrete following inspection and approval of duct and ground wire installation by the Owner Representative.
b. Place concrete as indicated per SECTION 03300 of these Technical Specifications.

3.03 CLEANING & TESTING:
A. The completed duct lines shall be cleaned and field-tested and pulling lines and plugs installed before final duct bank acceptance. Contractor shall notify Owner a minimum of two (2) working days before starting this Work. An inspector shall have the right to be present at all times until the cleaning, and testing are completed and pulling lines and plugs are installed to its satisfaction.
B. Upon completion, each duct shall be mandrelled, brushed, and swabbed.
C. Mandrelling:
1. Use of a 4.75"x7.08" Condux (Part #0805960) or approved equal mandrel will be allowed but requires a 100% success rate on all duct banks with the exception of two (2) ducts per bank. For these two (2) ducts the use of an approved 4.50" mandrel or an approved 4.00" mandrel with NES approval of a video showing the inside of the duct will be allowed.
2. Mandrel shall be equipped with a backup cord, for use in the event it can not pass through the duct line.
3. Mandrel shall be approved by the Owner Representative, in writing, prior to use.
4. Inspector shall be present for the final mandrelling of the duct bank system and shall sign-off, as accepting the results of the mandrelling.
D. Brushing:
1. The brush for cleaning the duct shall be a standard duct brush and the diameter shall be the same as the inside diameter of the ducts to be cleaned.
E. Swabbing:
1. The swab shall consist of a ball of cotton rags, sized to fit snugly within the duct.
2. If moisture and/or foreign materials are evident on the swab after being pulled through the pipe, additional swabbing must be performed until swab appears dry per the Inspector's discretion.
3. If ripping is evident on the swab, mandrelling must be carefully repeated and inspected to ensure pipe or weld defects do not exist. If any defects exist, they must be reported to Engineer and further direction will be provided.
F. Following successful testing of the ducts, Contractor shall install in each duct run a mule tape pull line (1250 lbs. rating.) and plug both ends of each duct with plastic plugs until cable pulling commences.
G. An inspection report for each vault to vault or vault to riser location shall be provided to Owner.

3.04 BACKFILLING:
A. Contractor shall take all steps necessary to stabilize the duct bank to ensure no movement will occur such that the cable will experience shear forces.
B. Concrete for encased duct lines shall be sufficiently cured to prevent compromise of the installation before backfilling with soil can commence.
C. Backfill as specified in Section 312323 of these Technical Specifications.

SECTION 017123 - FIELD ENGINEERING

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED
A. Contractor shall provide field engineering services and establish grades, lines, and levels, by use of recognized engineering survey practices.
B. Contractor shall provide as-built surveys in AutoCAD format and in state plane coordinate system for the proposed improvements. Both the location and elevation of the improvements shall be provided.
C. Control datum for survey that is shown on the Drawings.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 INSPECTION
A. Verify locations of survey control points prior to starting work. Promptly notify Engineer of any discrepancies discovered.

3.2 SURVEY REFERENCE POINTS
A. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Make no changes without prior written notice to Engineer.
B. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated survey control points based on original survey control.

3.3 SURVEY AS-BUILTS
A. Contractor shall submit as-builts to Owner within 7 days of acceptance of the work.
B. As-builts shall be provided to the Owner in state plane coordinates, along with marked up plans as necessary to complete record drawings.
C. As-built survey to include location and elevation of the following: top of duct run encasement every 25', center of manhole casting, and all stubouts (including the endpoint of all stubouts).

SWGR# 2019041013
BUILDING PERMIT# 2020005603
METRO CASE # 2017SP-095-003
SEWER PROJECT: #19SL0157
WATER PROJECT: #19WL0068

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RSA PROJECT: 17135-0970

CLIENT:
NASHVILLE INTERMEDIARY, LLC
A DEVELOPMENT PARTNERSHIP BETWEEN:
CREED INVESTMENT COMPANY
PORTMAN HOLDINGS

PROJECT:
MOORE BLDG
FORMERLY NAMED:
19TH AND CHET ATKINS OFFICE BUILDING SP
CASE NO. 2017SP-095-003

827 19th Avenue
Nashville, TN 37212

SEAL:
EVAN BLAKE FOSTER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 120457
STATE OF TENNESSEE
04-30-2020

CONSTRUCTION DOCUMENTS

Revision		
No.	Date	Description
1	08/20/20	City Comments

NES NOTES

C7.4

PROJECT: 42885.01
DATE: 02.21.2020

LINE IS 3 INCHES WHEN PRINTED FULL SIZE
FULL SHEET SIZE = 34"X44"

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