



Engineers, Surveyors, Planners, Scientists

May 26, 2023

City of Columbus, Department of Public Utilities
Attn: Mr. Greg Fedner, P.E.
City of Columbus, Division of Sewerage & Drainage Engineer
910 Dublin Road
Columbus, Ohio 43215

Subject: Type II Variance for Nationwide Children's Hospital Enabling Storm for Inpatient Expansion (CC-19940)

Dear Mr. Fedner,

We are requesting a Type II variance to the Stormwater Drainage Manual, Section 2.3.2.2 Storm Sewer Hydraulic Requirements (Pipe Sizing Criteria / Storm Sewer Layout Requirements). The project is known as Nationwide Children's Hospital Enabling Storm for Inpatient Expansion and is located at 630 Children's Drive, Columbus, Ohio 43205. We request that approval to use a 36" diameter storm with a pipe length of 388.43' between access structures in lieu of the required 300' maximum length between access structures for pipes under 60" in diameter. This will be a private storm sewer that will be maintained by the owner. Options are provided in accordance with the City of Columbus Stormwater Manual.

The Preferred plan can be seen in Exhibits 1 and 1A. The Preferred option proposes utilizing a 36" diameter storm with a pipe length of 388.43' between access manholes 1 and 2. The 36" diameter storm will be routed underneath a future Nationwide Children's Hospital Underground Parking Garage. The storm installed under the garage will comply with all applicable building code compliance. Nationwide Children's Hospital is aware there may be additional expense for maintenance of this sewer due to the need for equipment with longer reach for trenchless cleaning, and maintenance activities.

See below for two Alternate options:

1. Alternative Option 1 can be seen in Exhibits 2 and 2A. This option has two pipe runs that utilizes a 36" diameter storm with a pipe length of 300.00' between access manholes 2 and X and a 36" diameter storm with a pipe length of 88.43' between access manholes X and 1. This option meets the 300' manual requirement. This option is no longer a viable option in its current state. As shown in exhibits 2 and 2A, manhole X would be located within the underground garage footprint. This structure would require a watertight bolt down lid that could be compromised and subject to surcharge into the underground garage from the existing 60" downstream storm this system ties into. Additionally, the plan (CC-19940), that this manhole would be installed under needs approved well in advance of the construction of the parking garage. Permit Plans for the garage have not started the review process. Detail and coordination between manhole X and the garage will be required for both CC-19940 and the Garage Permit Plans causing significant delays to the overall project schedule.
2. Alternate Option 2 can be seen in Exhibits 3 and 3A. This option has the same pipe runs as described in Alternate Option 1. This option is no longer a viable option in its current state. As shown in exhibits 3 and 3A, this option would shorten the overall garage's north to south footprint approximately 27' to the south to allow for the installation of manhole X directly to the surface. This footprint reduction would result in the loss of approximately 24 parking spaces. Nationwide Children's Hospital has stated that this significant of a reduction to the garage footprint and parking count would result in the removal of the garage from the project, jeopardizing the project.

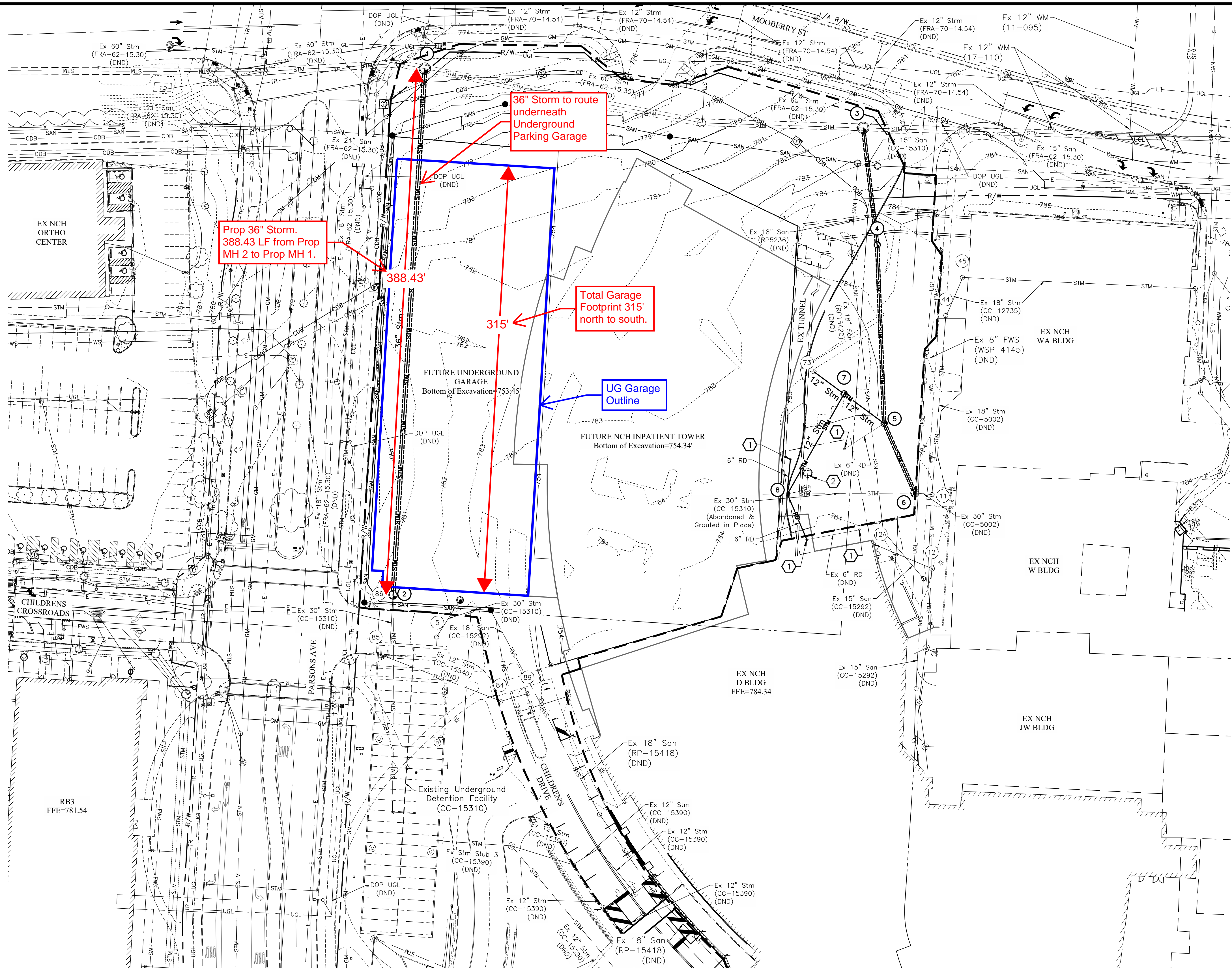
If you have any questions or further clarification is needed please give me a call at 614.348.7757

Sincerely,



Robert McCurnin, P.E.





EXISTING LEGEND		PROPOSED LEGEND	
---	Right-of-Way	---749-750---	Contours
- - - -	Easement	---CDB---	Communication Duct Bank
---	Curb	---GM---	Gas
---	Existing Contours	---SAN---	Sanitary Sewer
---	Water Main	---SAS---	Sanitary Service
---	Fire Water Service	---STM---	Storm Sewer
---	Combination Sewer	○	Underdrain
---	Storm Sewer	○	Cleanout
---	Sanitary Sewer	○	Manhole
---	Overhead Lighting	○	Catch Basin
---	Undgnd Lighting	○	Curb & Gutter Inlet
---	Electric Duct Bank	---	Limits of Disturbance
---	Overhead Electric		
---	Electric		
---	Communications		
---	Gas		

* Not all symbols or Linetypes Necessarily Used

GENERAL NOTES

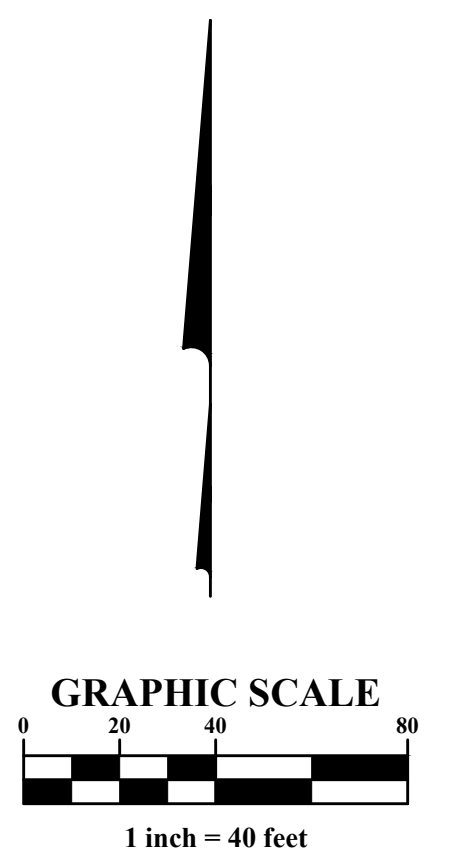
- The contractor is responsible for construction fencing, construction traffic and maintenance of vehicular traffic around the project site. The contractor is responsible to provide lights, signs, barricades, and other devices to warn and physically separate the pedestrians and vehicular traffic from the hazards of the construction and demolition operations. The contractor shall protect pedestrian and vehicular traffic from construction traffic at all times during the project.

- Trees
- Flag Pole
- Sign
- Manhole
- Light Pole
- Power Pole
- Signal Pole
- Valve
- Hydrant
- Gas Valve
- Gas meter
- Gas indicator
- Pullbox
- Electrical Fixture
- Transformer
- Comm. Pedestal
- Storm Inlet

- DND Do Not Disturb
- TBR To Be Removed
- TBPC To Be Protected During Construction
- PA Previously Abandoned
- NCHCP Nationwide Children's Hospital Construction Plan

CODED NOTES

- ① Existing Canopy Column (DND)
- ② Existing Foundation Drain Lift Station Pump for Existing Tunnel



J:\20220804\Drawings\44Sheets\Enabling Storm CC 20220804-Overall Grading Plan.dwg, Last Saved By: jweeks, 5/17/2023 4:21 PM, Last Printed By: McCurmin, Robert, 5/17/2023 4:24 PM (No Xrefs)

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER VOL.	PAGE	NO.	DESCRIPTION	APPROVAL DATE

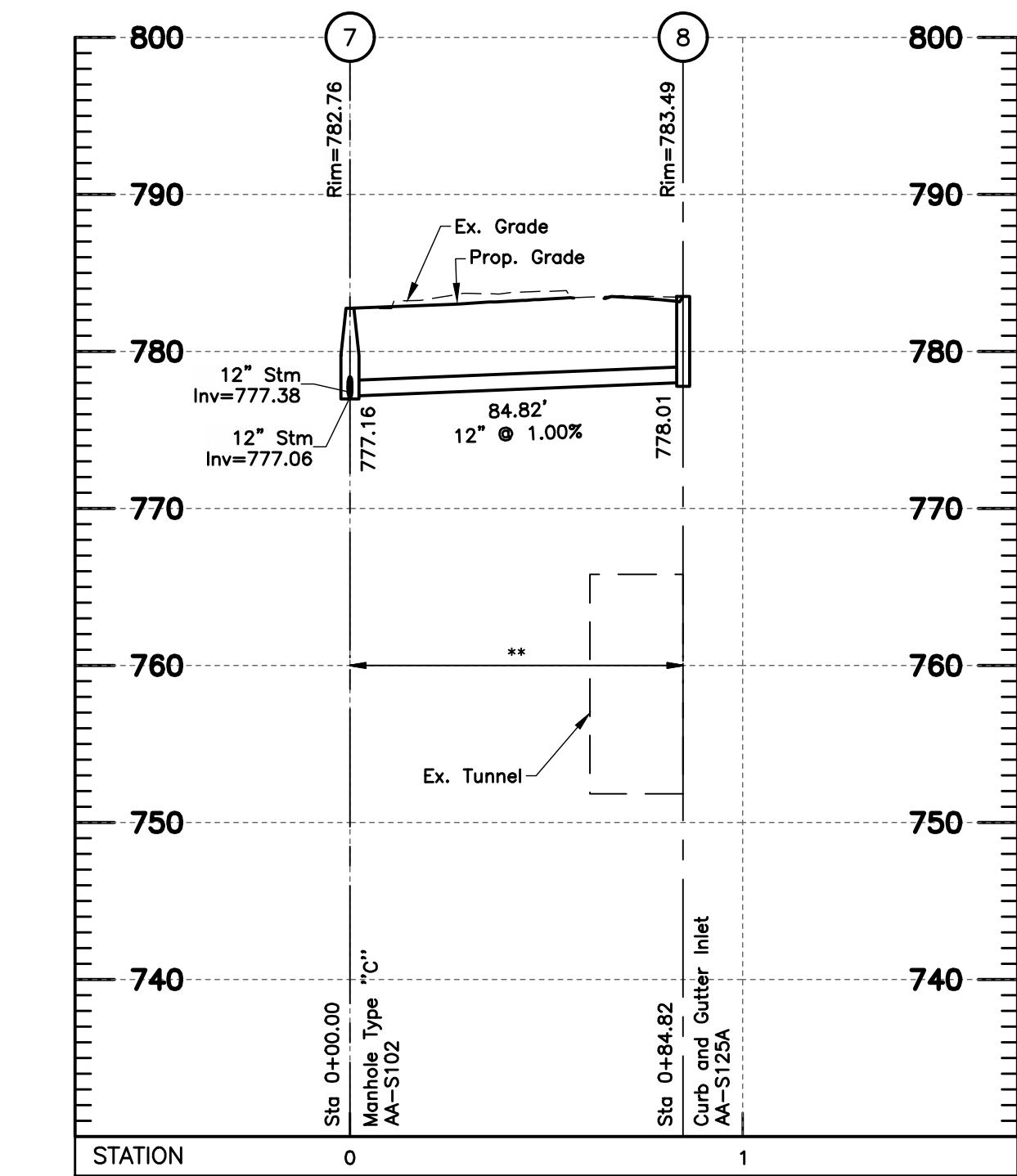
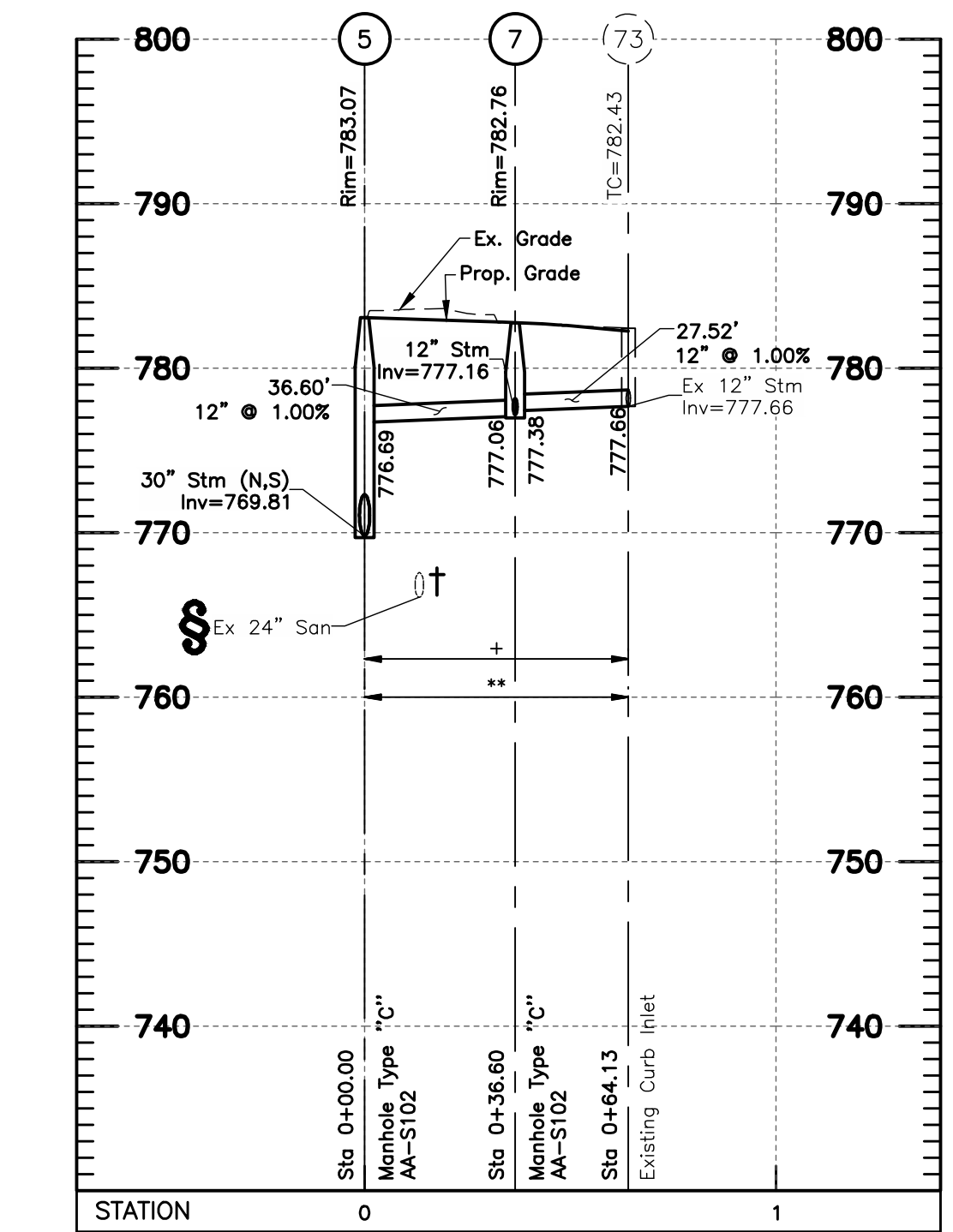
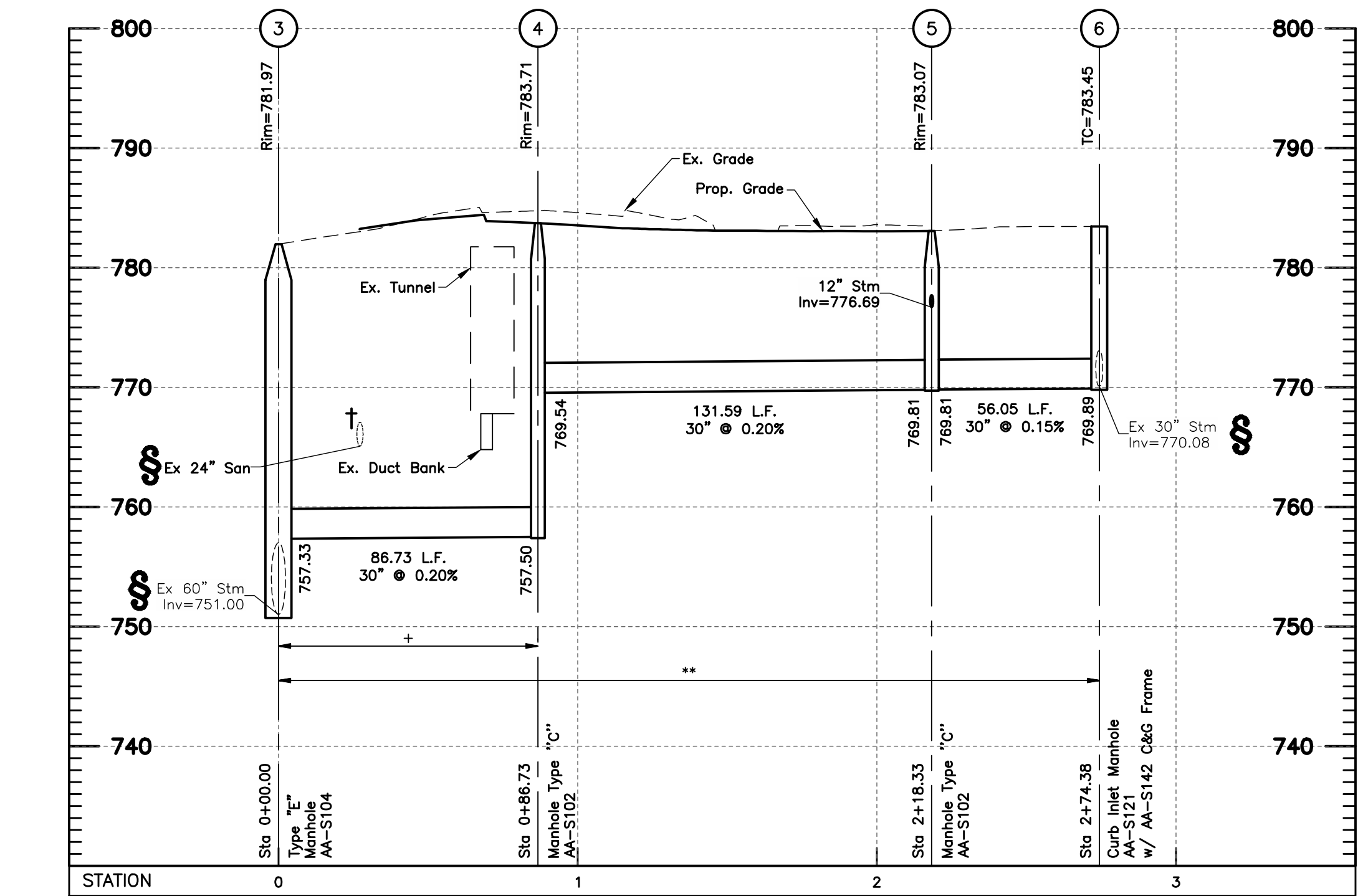
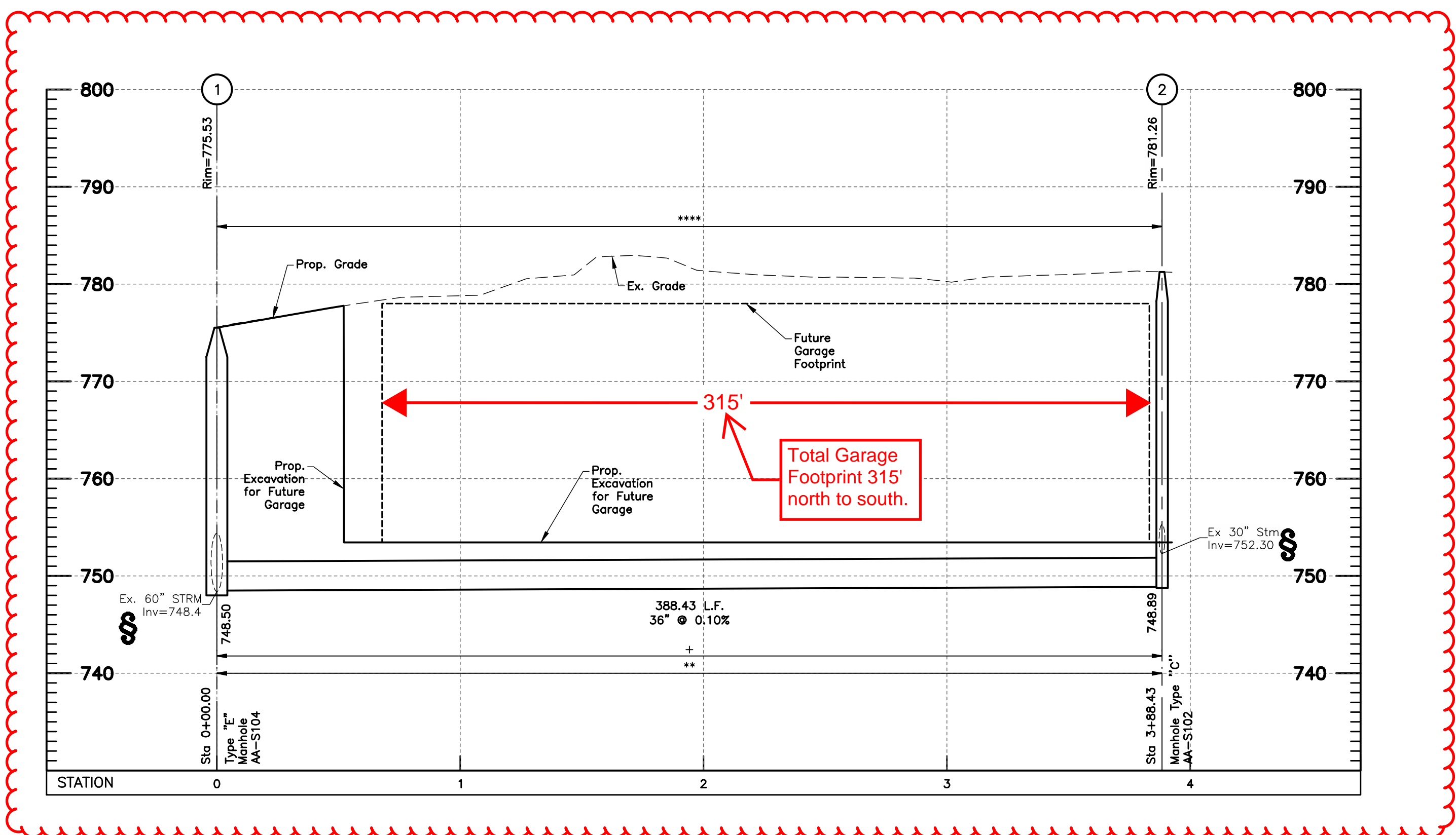
PLAN PREPARED BY:		
<small>Evans, Mechwart, Hamilton & Tilton, Inc. Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648 emht.com</small>		

EXHIBIT 1

PROJECT TITLE:			
PRIVATE STORM SEWER IMPROVEMENTS FOR NATIONWIDE CHILDREN'S HOSPITAL ENABLING FOR INPATIENT EXPANSION 630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205 STORM SEWER OVERALL GRADING PLAN			
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
INSPECTOR			
AGREEMENT		COMPLETED	
RPD	CKD	CID	CONDR.
INDEX DETAIL		RECORD FILE	

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: 1" = 40'	SHEET 8 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.

J:\20220804\Drawings\44Sheets\Enabling Storm CC-20220804-Storm Sewer Profiles.dwg, Last Saved By: jweeks, 5/16/2023 3:17 PM Last Printed By: McCurmin, Robert, 5/17/2023 4:26 PM (No Xrefs)



NOTES:

All elevations on this plan are based on NAVD 1988 datum, unless otherwise noted.

All street crossings shown in profiles are private streets.

All backfill shall be compacted to the density of the existing ground unless otherwise noted:

- * Compacted Backfill, Per Item 911
- ** Compacted Granular Backfill, Per Item 912
- *** Backfill shall be compacted in horizontal lifts, with loose thicknesses not exceeding 8 inches. Each lift shall be compacted to at least 95% of the maximum dry density as determined by the "Standard" compaction test (ASTM D-698).
- **** Pipe to be installed per the Ohio Plumbing and Building Codes.

All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per Item 203 of CMSC.

Denoted thus:

(+) Pipe runs (denoted with "+") are to be sanitary grade(watertight) and have watertight joints per City of Columbus Construction and Material Specification 901.15, and Trench Dams per City of Columbus Construction and Material Specification 901.11. This applies to full pipe length, from structure to structure.

† Contractor shall maintain a 1.5' minimum clearance from outside of pipe to outside of pipe for all utility crossings unless otherwise noted.

§ Contractor to verify invert and location of existing utility before construction.



EASEMENT REFERENCE		
CITY NO.	COUNTY RECORDER VOL.	PAGE

REVISIONS		
NO.	DESCRIPTION	APPROVAL DATE

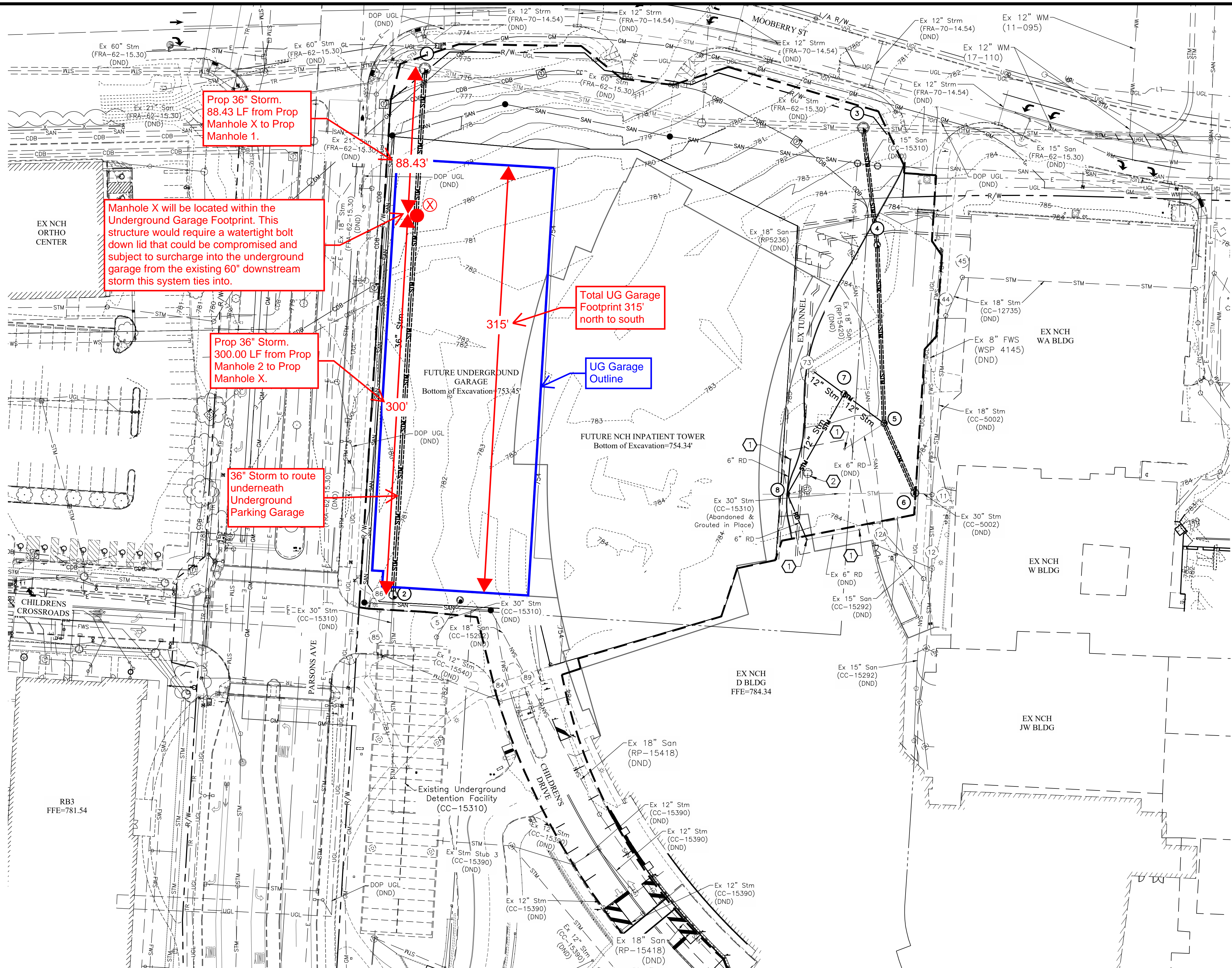
PLAN PREPARED BY:

Evans, Mechwart, Hamilton & Tilton, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.4500 Toll Free: 888.775.3648
 emht.com

EXHIBIT 1A

PROJECT TITLE:			
PRIVATE STORM SEWER IMPROVEMENTS FOR NATIONWIDE CHILDREN'S HOSPITAL ENABLING FOR INPATIENT EXPANSION 630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205			
STORM SEWER PROFILE			
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT		COMPLETED	
RPD	CKD	CID	CON.DR.
INDEX	DETAIL	RECORD	FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: Horiz: 1" = 40' Vert: 1" = 10'	SHEET 12 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.



EXISTING LEGEND		PROPOSED LEGEND	
---	Right-of-Way	---749---	Contours
---	Easement	---CDB---	Communication Duct Bank
---	Curb	---	Gas
---	Existing Contours	---	Sanitary Sewer
---	Water Main	---	Sanitary Service
---	Fire Water Service	---	Storm Sewer
---	Combination Sewer	---	Underdrain
---	Storm Sewer	○	Cleanout
---	Sanitary Sewer	□	Manhole
---	Overhead Lighting	■	Catch Basin
---	Undgnd Lighting	---	Curb & Gutter Inlet
---	Electric Duct Bank	---	Limits of Disturbance
---	Overhead Electric		
---	Electric		
---	Communications		
---	Gas		

GENERAL NOTES

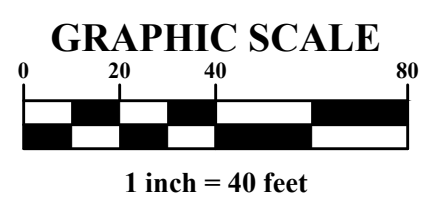
1. The contractor is responsible for construction fencing, construction traffic and maintenance of vehicular traffic around the project site. The contractor is responsible to provide lights, signs, barricades, and other devices to warn and physically separate the pedestrians and vehicular traffic from the hazards of the construction and demolition operations. The contractor shall protect pedestrian and vehicular traffic from construction traffic at all times during the project.

⊗	Trees	⚑	Flag Pole
⊗	Gas meter	○	Manhole
⊗	Gas indicator	○	Light Pole
⊗	Pullbox	⚡	Power Pole
⊗	Electrical Fixture	⚡	Signal Pole
⊗	Transformer	⊗	Valve
⊗	Comm. Pedestal	⊗	Hydrant
⊗	Storm Inlet	⊗	Gas Valve

CODED NOTES

① Existing Canopy Column (DND)

② Existing Foundation Drain Lift Station Pump for Existing Tunnel



J:\20220804\Drawings\44Sheets\Enabling Storm CC 20220804-Overall Grading Plan.dwg, Last Saved By: jweeks, 5/17/2023 4:21 PM, Last Printed By: McCurmin, Robert, 5/17/2023 4:24 PM (No Xrefs)

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER VOL.	PAGE	NO.	DESCRIPTION	APPROVAL DATE

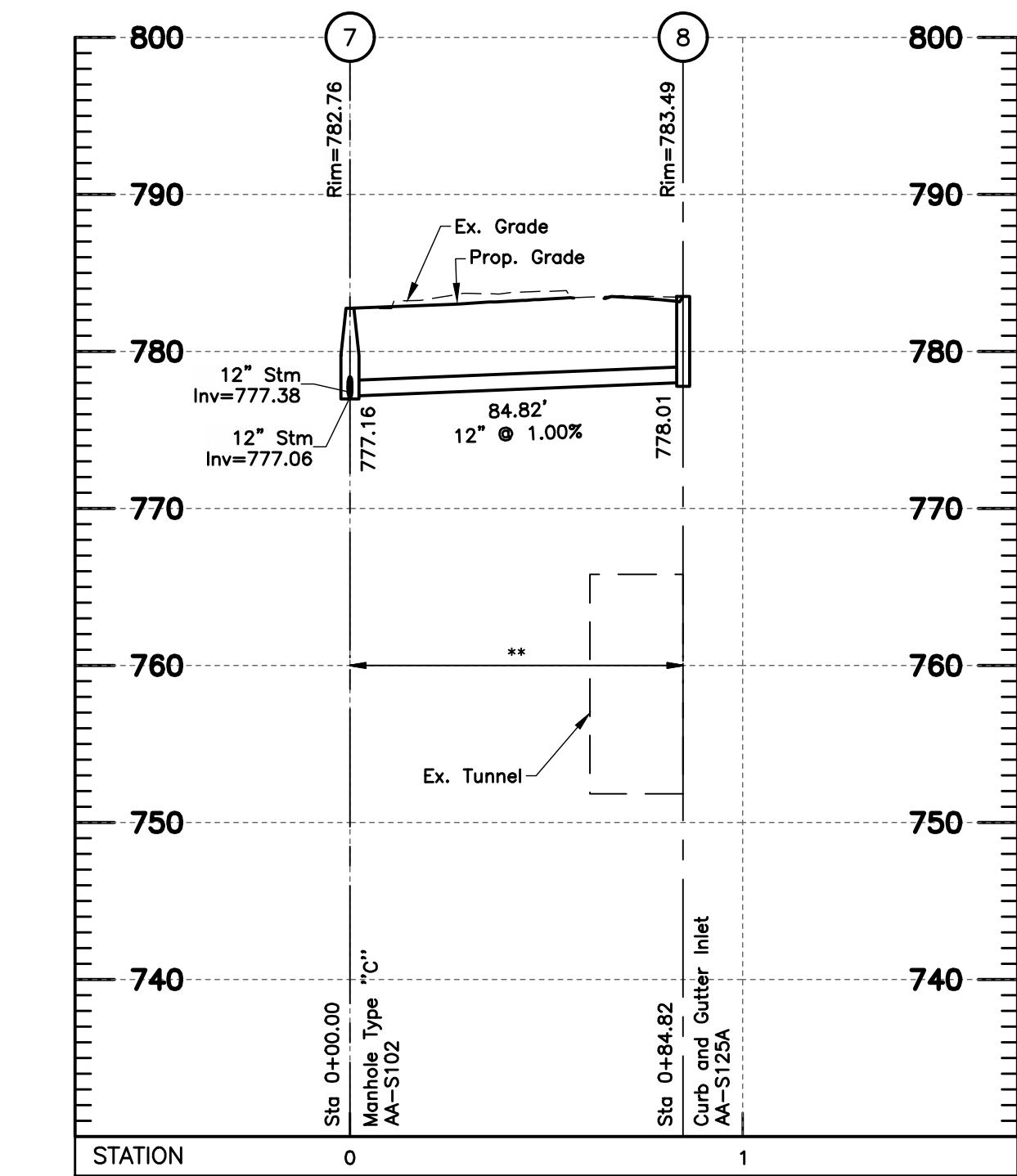
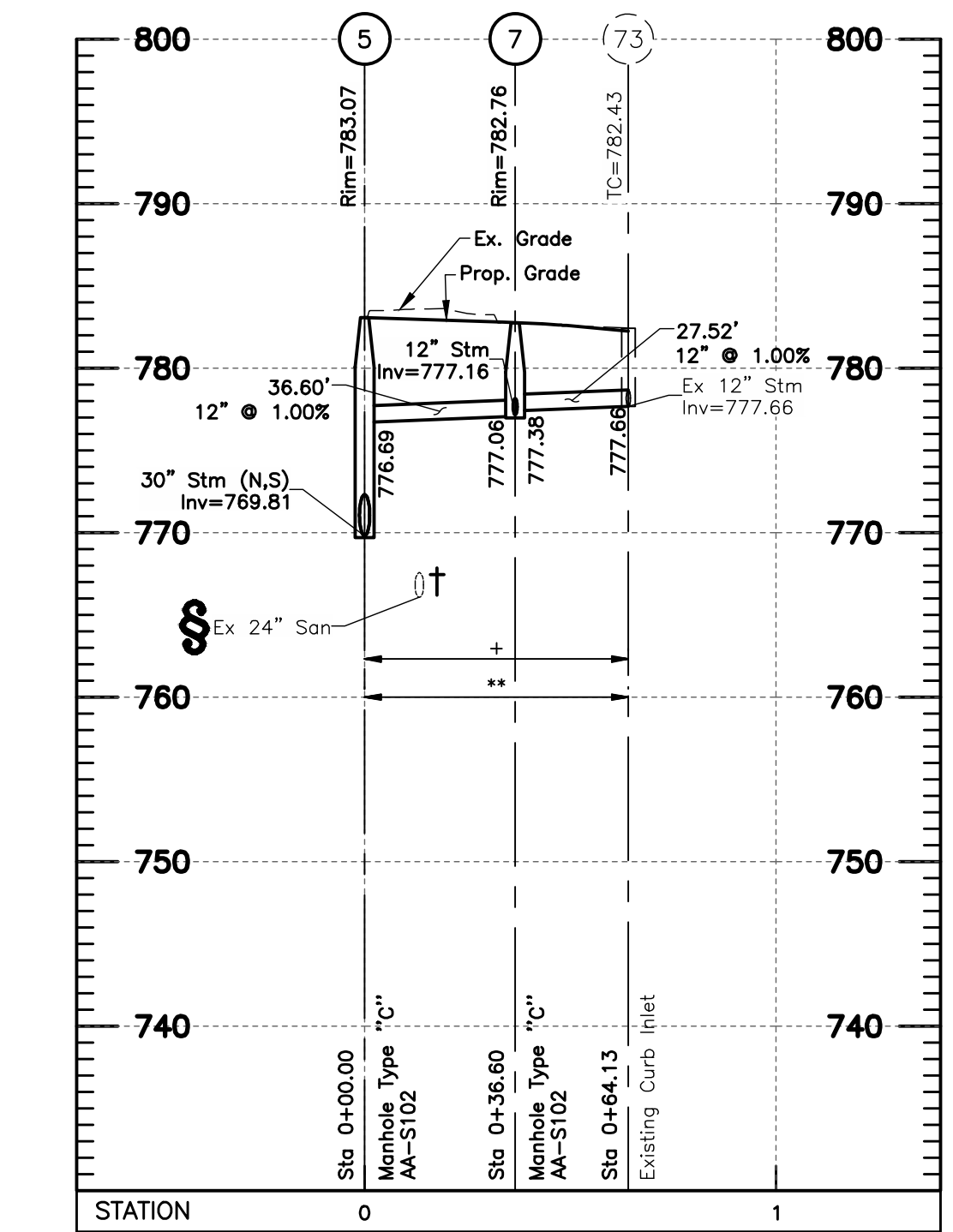
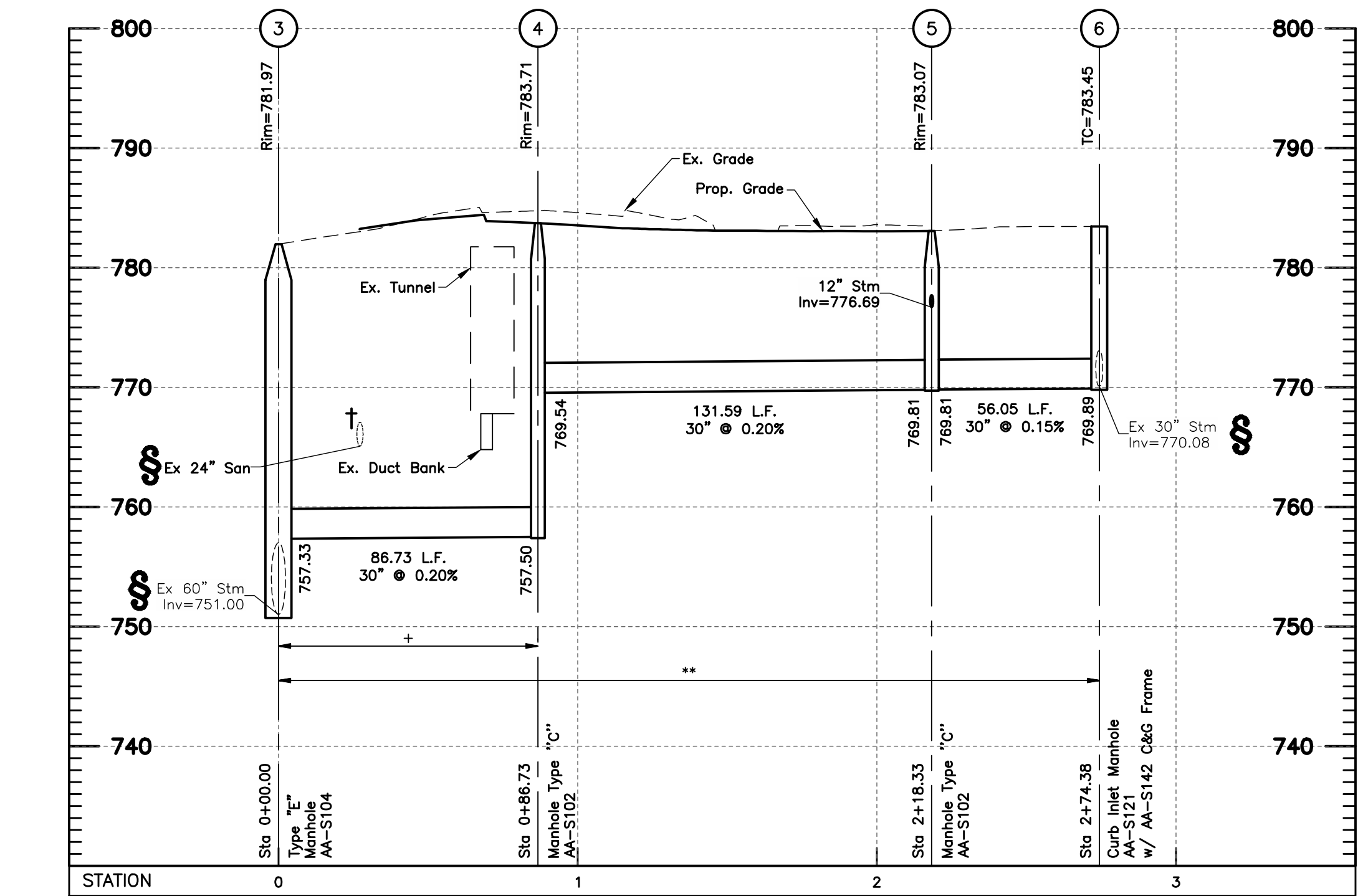
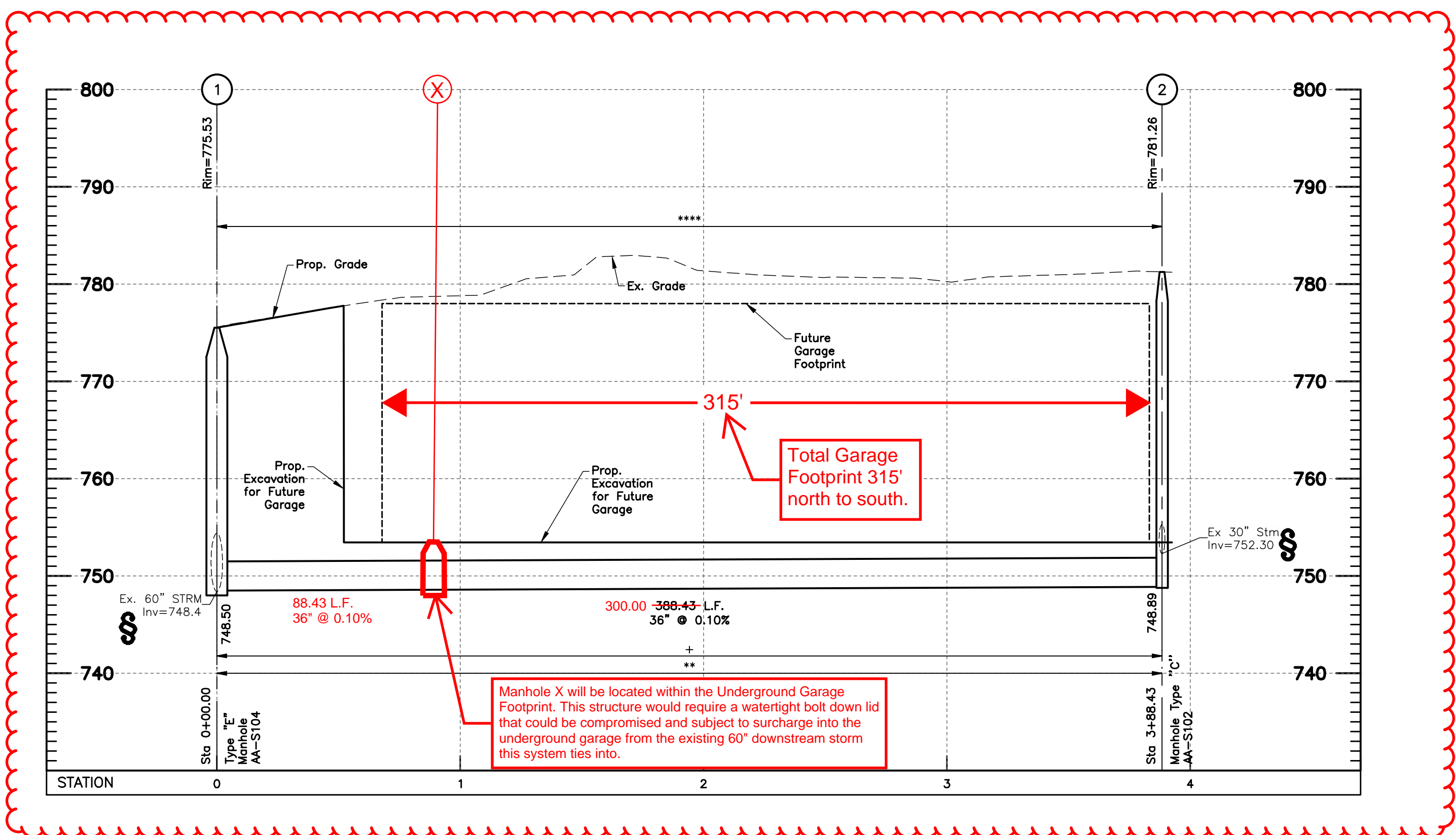
PLAN PREPARED BY:		
 EMHT Evans, Mechwart, Hamilton & Tilton, Inc. Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648 emht.com		

EXHIBIT 2

PROJECT TITLE:			
PRIVATE STORM SEWER IMPROVEMENTS FOR NATIONWIDE CHILDREN'S HOSPITAL ENABLING FOR INPATIENT EXPANSION 630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205 STORM SEWER OVERALL GRADING PLAN			
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
INSPECTOR			
AGREEMENT		COMPLETED	
RPD	CKD	CID	CONDR.
INDEX	DETAIL	RECORD	FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: 1" = 40'	SHEET 8 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.

J:\20220804\Drawings\44Sheets\Enabling Storm CC-20220804-Storm Sewer Profiles.dwg, Last Saved By: jweeks, 5/17/2023 3:17 PM Last Printed By: McCurmin, Robert, 5/17/2023 4:26 PM (No Xrefs)



NOTES:

All elevations on this plan are based on NAVD 1988 datum, unless otherwise noted.

All street crossings shown in profiles are private streets.

All backfill shall be compacted to the density of the existing ground unless otherwise noted:

- * Compacted Backfill, Per Item 911
- ** Compacted Granular Backfill, Per Item 912
- *** Backfill shall be compacted in horizontal lifts, with loose thicknesses not exceeding 8 inches. Each lift shall be compacted to at least 95% of the maximum dry density as determined by the "Standard" compaction test (ASTM D-698).
- **** Pipe to be installed per the Ohio Plumbing and Building Codes.

All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per Item 203 of CMSC.

Denoted thus:

(+) Pipe runs (denoted with "+") are to be sanitary grade(watertight) and have watertight joints per City of Columbus Construction and Material Specification 901.15, and Trench Dams per City of Columbus Construction and Material Specification 901.11. This applies to full pipe length, from structure to structure.

† Contractor shall maintain a 1.5' minimum clearance from outside of pipe to outside of pipe for all utility crossings unless otherwise noted.

§ Contractor to verify invert and location of existing utility before construction.



EASEMENT REFERENCE			REVISIONS			
CITY NO.	COUNTY RECORDER VOL.	PAGE	GRANTOR	NO.	DESCRIPTION	APPROVAL DATE

PLAN PREPARED BY:

EMHT
 Evans, Mechwart, Hamilton & Tilton, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.4500 Toll Free: 888.775.3648
 emht.com

EXHIBIT 2A

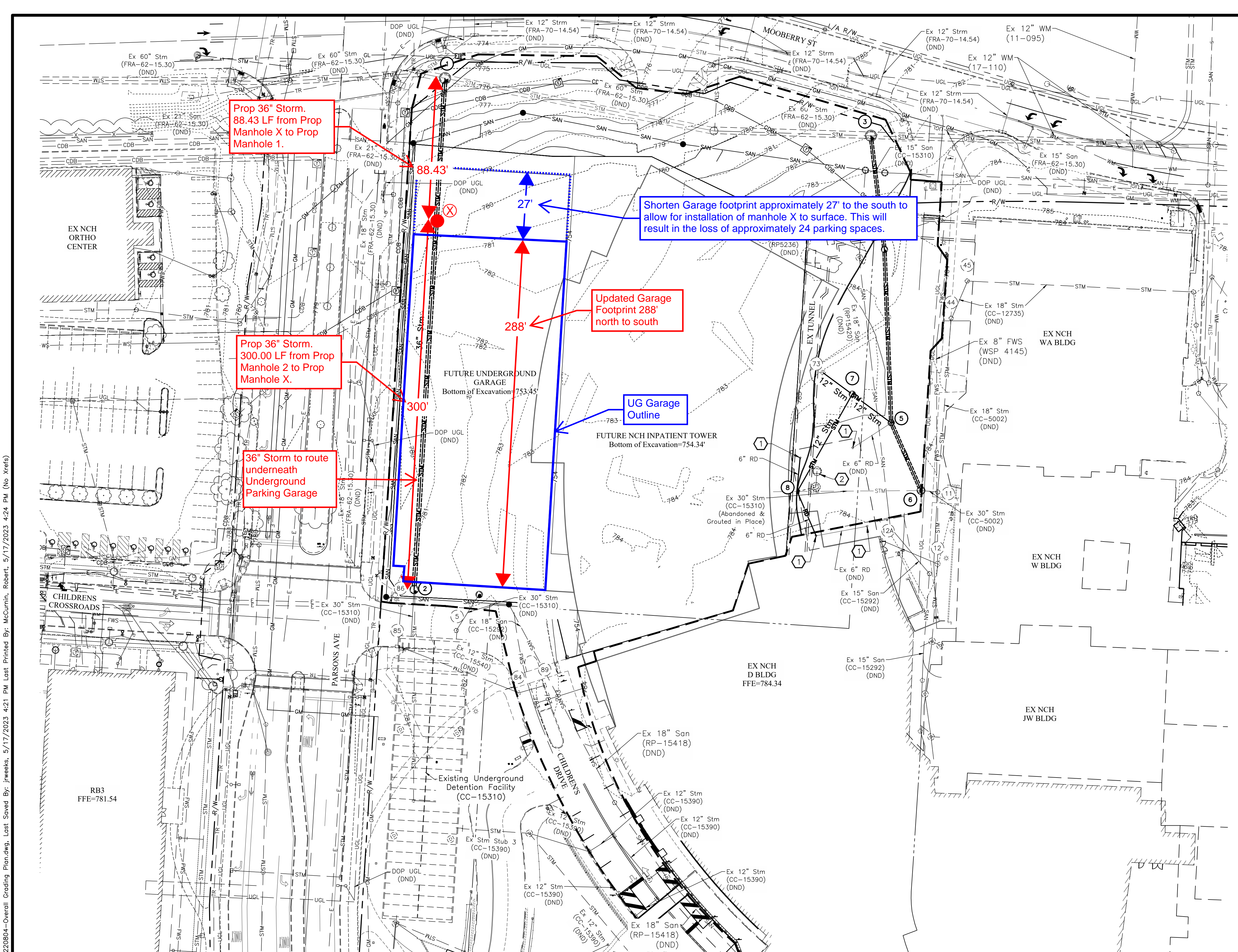
PROJECT TITLE:

PRIVATE STORM SEWER IMPROVEMENTS
FOR
NATIONWIDE CHILDREN'S HOSPITAL
ENABLING FOR INPATIENT EXPANSION
630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205

STORM SEWER PROFILE

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT		COMPLETED	
RPD	CKD	CID	CONDR.
INDEX	DETAIL	RECORD	FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: Horiz: 1" = 40' Vert: 1" = 10'	SHEET 12 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.



EXISTING LEGEND		PROPOSED LEGEND	
---	Right-of-Way	---749-750---	Contours
- - - -	Easement	---CDB---CDB---	Communication Duct Bank
---	Curb	---GM---GM---	Gas
---	Existing Contours	---SAN---SAN---	Sanitary Sewer
---	Water Main	---SAS---SAS---	Sanitary Service
---	Fire Water Service	---STM---STM---	Storm Sewer
---	Combination Sewer	○	Cleanout
---	Storm Sewer	○	Manhole
---	Sanitary Sewer	○	Catch Basin
---	Overhead Lighting	■	Curb & Gutter Inlet
---	Undgnd Lighting	---	Limits of Disturbance
---	Electric Duct Bank		
---	Overhead Electric		
---	Electric		
---	Communications		
---	Gas		

* Not all symbols or Linetypes Necessarily Used

GENERAL NOTES

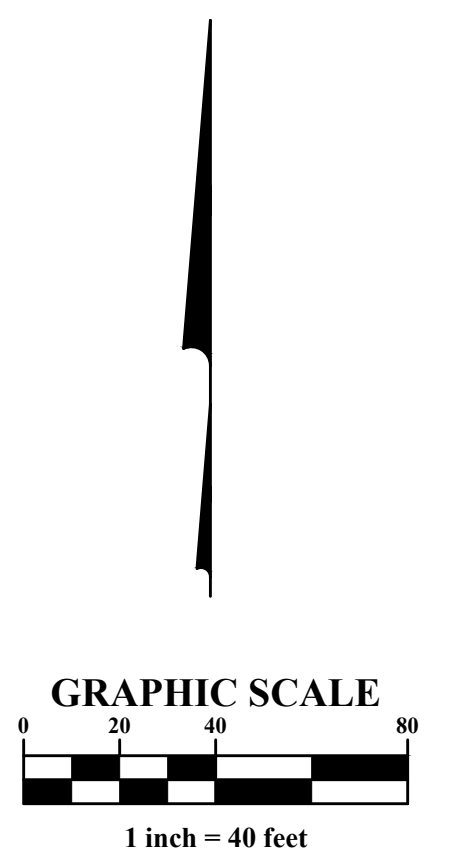
- The contractor is responsible for construction fencing, construction traffic and maintenance of vehicular traffic around the project site. The contractor is responsible to provide lights, signs, barricades, and other devices to warn and physically separate the pedestrians and vehicular traffic from the hazards of the construction and demolition operations. The contractor shall protect pedestrian and vehicular traffic from construction traffic at all times during the project.

- Trees
- Flag Pole
- Sign
- Manhole
- Light Pole
- Power Pole
- Signal Pole
- Valve
- Hydrant
- Gas Valve
- Gas meter
- Gas indicator
- Pullbox
- Electrical Fixture
- Transformer
- Comm. Pedestal
- Storm Inlet

- DND Do Not Disturb
- TBR To Be Removed
- TBPC To Be Protected During Construction
- PA Previously Abandoned
- NCHCP Nationwide Children's Hospital Construction Plan

CODED NOTES

- ① Existing Canopy Column (DND)
- ② Existing Foundation Drain Lift Station Pump for Existing Tunnel



J:\20220804\Drawings\Overall Grading Plan.dwg, Last Saved By: jweeks, 5/17/2023 4:21 PM, Last Printed By: McCurmin, Robert, 5/17/2023 4:24 PM (No Xrefs)

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER VOL.	PAGE	NO.	DESCRIPTION	APPROVAL DATE

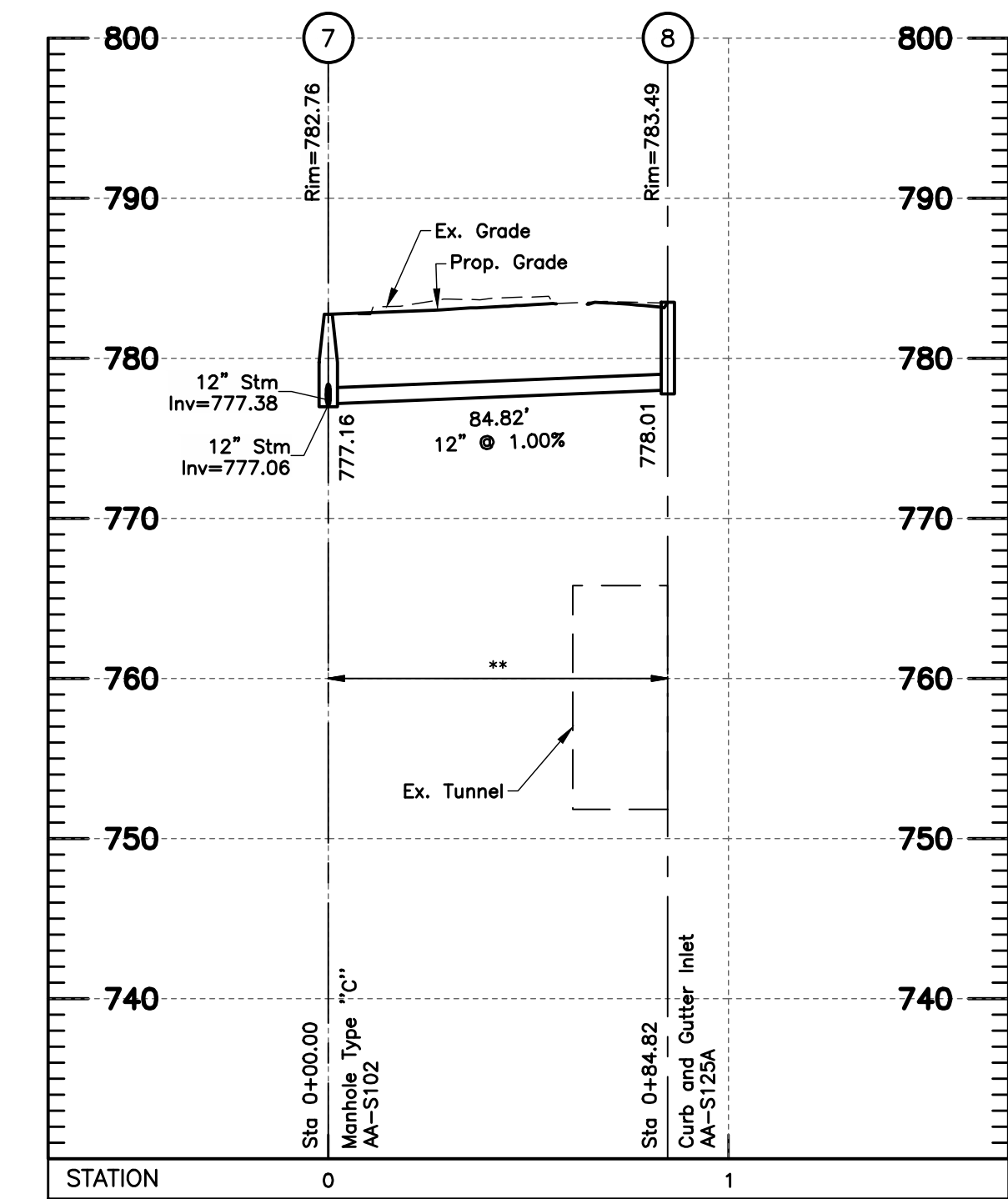
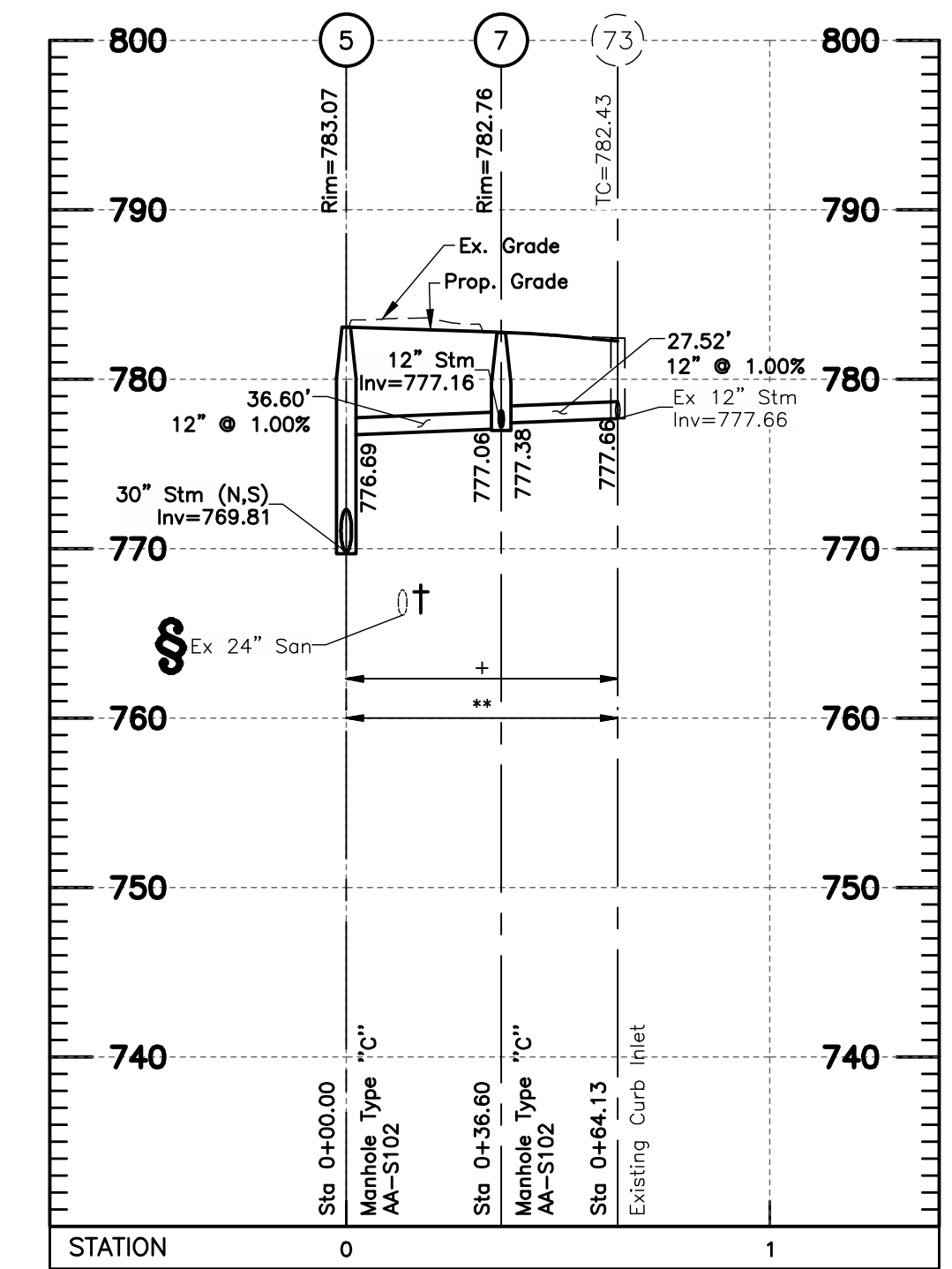
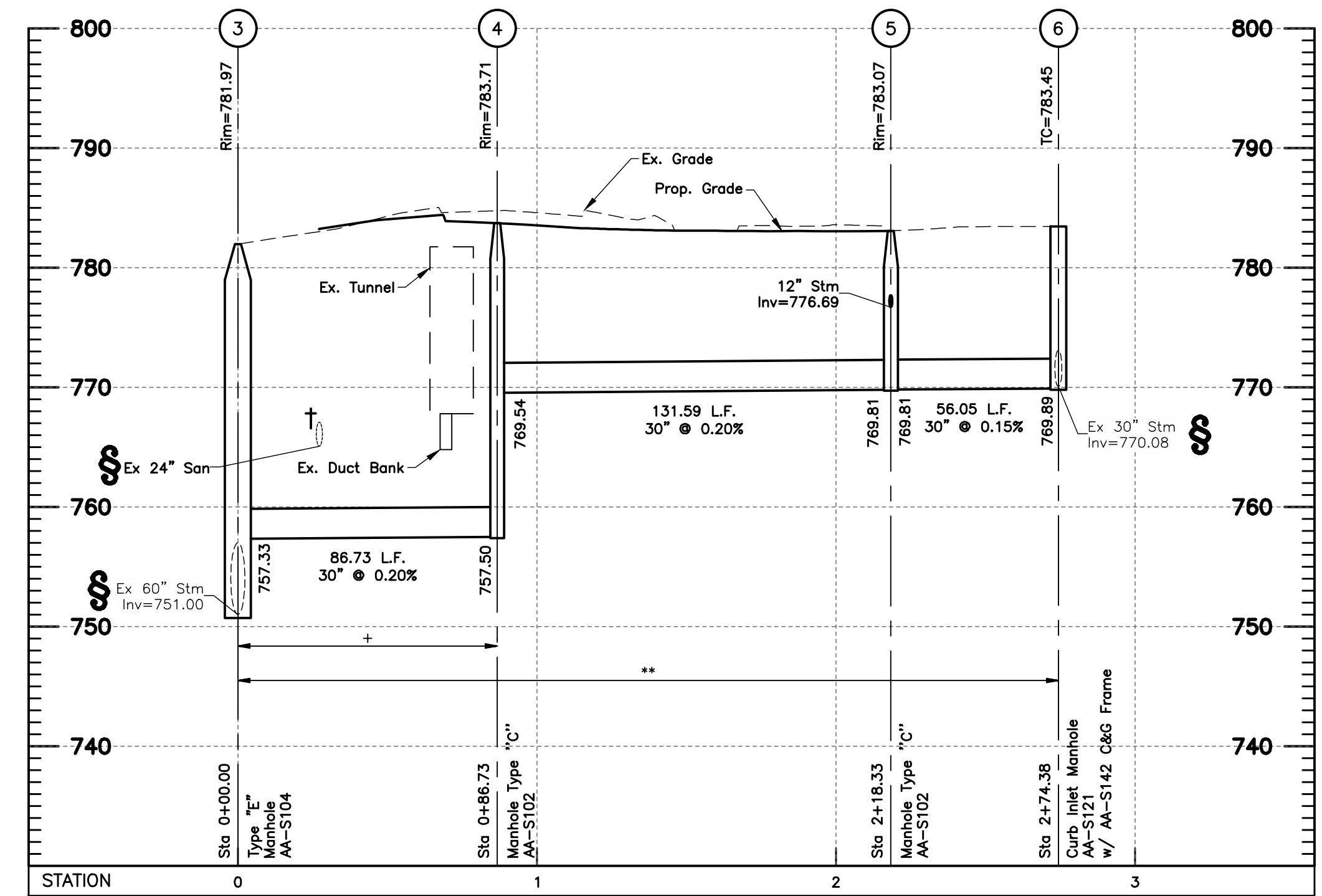
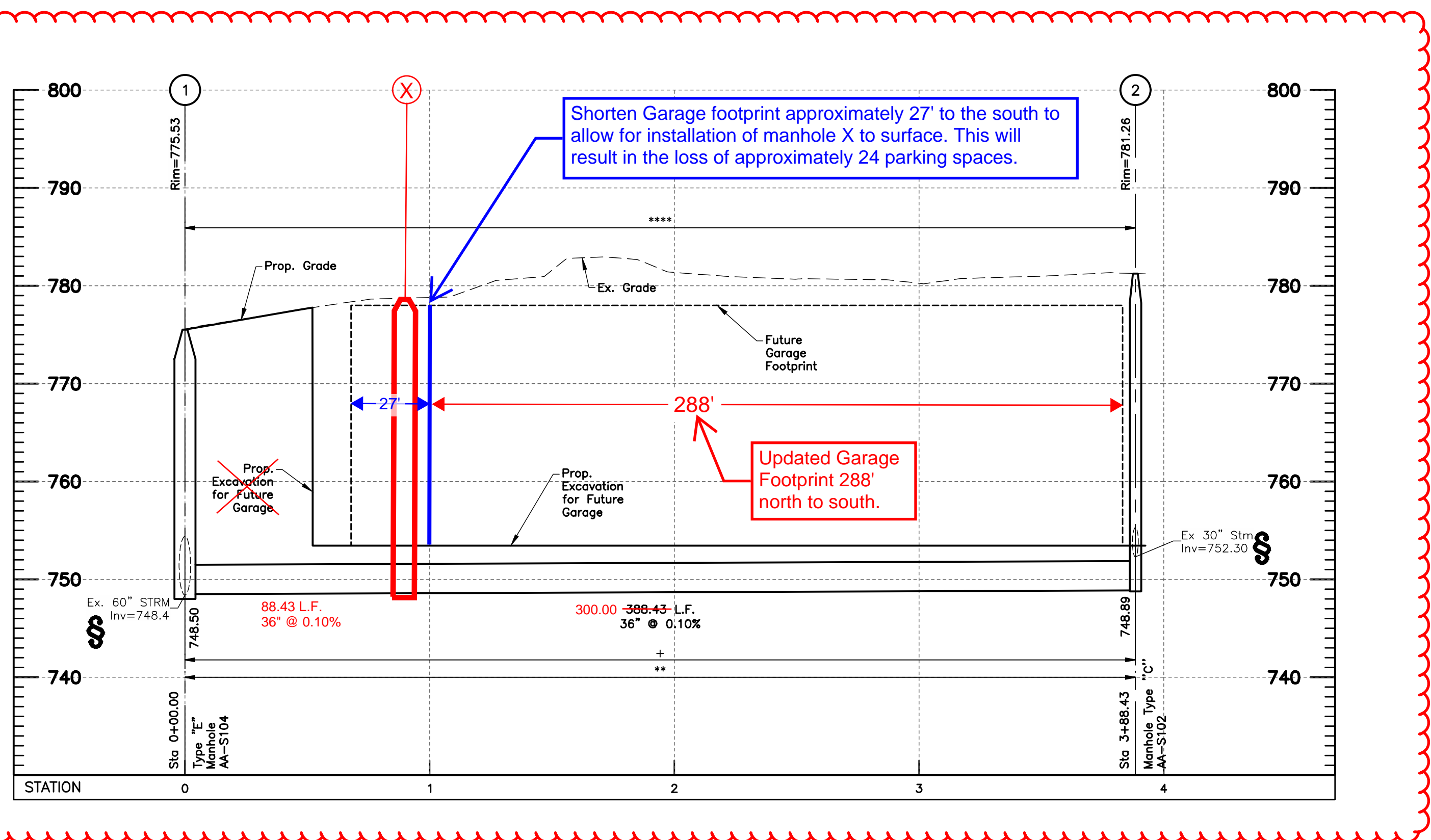
PLAN PREPARED BY:		
 EMHT Evans, Mechwart, Hamilton & Tilton, Inc. Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648 emht.com		

EXHIBIT 3

PROJECT TITLE:			
PRIVATE STORM SEWER IMPROVEMENTS FOR NATIONWIDE CHILDREN'S HOSPITAL ENABLING FOR INPATIENT EXPANSION 630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205 STORM SEWER OVERALL GRADING PLAN			
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
INSPECTOR			
AGREEMENT		COMPLETED	
RPD	CKD	CID	CONDR.
INDEX	DETAIL	RECORD	FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: 1" = 40'	SHEET 8 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.

J:\20220804\Drawings\44Sheets\Enabling Storm CC-20220804-Storm Sewer Profiles.dwg, Last Saved By: jweeks, 5/17/2023 3:17 PM Last Printed By: McCurmin, Robert, 5/17/2023 4:26 PM (No Xrefs)



NOTES:

All elevations on this plan are based on NAVD 1988 datum, unless otherwise noted.

All street crossings shown in profiles are private streets.

All backfill shall be compacted to the density of the existing ground unless otherwise noted:

- * Compacted Backfill, Per Item 911
- ** Compacted Granular Backfill, Per Item 912
- *** Backfill shall be compacted in horizontal lifts, with loose thicknesses not exceeding 8 inches. Each lift shall be compacted to at least 95% of the maximum dry density as determined by the "Standard" compaction test (ASTM D-698).
- **** Pipe to be installed per the Ohio Plumbing and Building Codes.

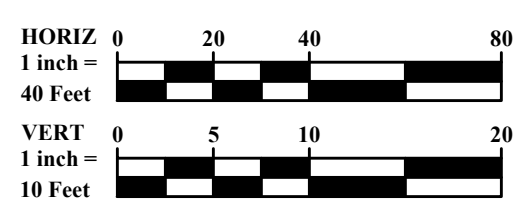
All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per Item 203 of CMSC.

Denoted thus:

(+) Pipe runs (denoted with "+") are to be sanitary grade(watertight) and have watertight joints per City of Columbus Construction and Material Specification 901.15, and Trench Dams per City of Columbus Construction and Material Specification 901.11. This applies to full pipe length, from structure to structure.

† Contractor shall maintain a 1.5' minimum clearance from outside of pipe to outside of pipe for all utility crossings unless otherwise noted.

§ Contractor to verify invert and location of existing utility before construction.



EASEMENT REFERENCE			REVISIONS			
CITY NO.	COUNTY RECORDER VOL.	PAGE	GRANTOR	NO.	DESCRIPTION	APPROVAL DATE

PLAN PREPARED BY:

EMHT
 Evans, Mechwart, Hamilton & Tilton, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.4500 Toll Free: 888.775.3648
 emht.com

EXHIBIT 3A

PROJECT TITLE:

PRIVATE STORM SEWER IMPROVEMENTS FOR
NATIONWIDE CHILDREN'S HOSPITAL
 ENABLING FOR INPATIENT EXPANSION
 630 CHILDREN'S DRIVE, COLUMBUS, OHIO 43205

STORM SEWER PROFILE

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT		COMPLETED	
RPD	CKD	CID	CONDR.
INDEX DETAIL		RECORD FILE	

CITY OF COLUMBUS, OHIO
 DEPARTMENT OF PUBLIC UTILITIES
 DIVISION OF SEWERAGE AND DRAINAGE
 DIVISION USE ONLY

SCALE: Horiz: 1" = 40' Vert: 1" = 10'	SHEET 12 / 16
CONTRACT DRAWING NO. CC-19940	RECORD PLAN NO.