

Request for Quote – DBE Subcontractors and Suppliers

Project: 77th Street and TH 77 Improvements
SP 2758-82, SP 157-108-035, City Project 41300
City of Richfield

Bid Date: Thursday, June 17, 2021

Bid Time: 10:00 am

DBE Goal: 14.9%

C.S. McCrossan Construction, Inc. is soliciting quotations from qualified bidders to develop pricing for the above referenced project. Please see the attached sheet for a list of potential work types that are available on this project.

C.S. McCrossan Construction, Inc. is an Equal Opportunity Employer and encourages participation from all certified DBE subcontractors and suppliers. If you can provide us with pricing in any of the areas listed above please return the attached form to our office. Plans are available for free in our online plan room; please contact us for more information.

If you need any assistance in the following areas, please contact our office:

1. Locating plans
2. Bonding, insurance, lines of credit
3. Technical assistance in preparing your quote
4. Breaking down work types into more economically feasible units
5. Locating equipment & supplies to prepare your quote

Thank you,

CSM Estimating Department

estimating@mccrossan.com

763-425-4167 (p) | 763-488-1649 (f)

We have identified the following work types for this project:

Project: 77th Street and TH 77 Improvements
SP 2758-82, SP 157-108-035, City Project 41300
City of Richfield

Aggregates	Asphalt Paving
Borrow	Bridge / Structures
Clearing & Grubbing	Concrete Curb & Gutter / Sidewalk
Concrete Median Barrier	Dewatering
Dumpsters	Electrical
Erosion Control	Excavation / Grading
Fencing	Field Office
Guardrail	Irrigation
Joint Adhesive	Modular Block Retaining Wall
Piling	Pipe Jacking
Portable Restrooms	Rebar / Structural Steel
Removals	RipRap / Geotextiles
Sawcutting	Seed, Sod & Turf Establishment
Signing	Striping
Structure Excavation & Backfill	Surveying
Sweeping	Televising
Traffic Control	Trees / Shrubs / Landscaping
Trucking	Underground Pipe/Structures

This list is of the work types we have determined as of this time. Additional work types may be determined as we continue to review the plans and specifications. If you are interested in bidding on this project but do not see your type of work listed, please contact our office to see if additional opportunities may be available.

REQUEST FOR QUOTE

RESPONSE FORM

C.S. McCrossan Construction, Inc. is bidding the following upcoming project. Potential Bidders are requested to check the appropriate box below and let us know of their intentions by email (estimating@mccrossan.com) or fax (763-488-1649).

Project**Interest**

Yes

No

77th Street & TH 77 Imp.
City of Richfield

☐☐**Name of Firm:**

Contact Person:

Phone / Fax Number:

Email:

Type of Work:

(Please list work types you are
interested in quoting.)

Assistance Needed:

(Please list any assistance we
can provide you in preparing
your quote.)

C.S. McCrossan Construction, Inc. is an Equal Opportunity Employer and encourages participation from all certified DBE subcontractors and suppliers. If you are interested in providing us a quote please return this form to our office via email (estimating@mccrossan.com) or by fax (763-488-1649).

If you need assistance or any additional information (plans / specifications), please contact our office.

MINNESOTA DEPARTMENT OF TRANSPORTATION
CITY OF RICHFIELD

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS SURFACING, RETAINING WALLS, NOISE WALLS, ADA IMPROVEMENTS, LIGHTING, TMS, AND BRIDGES NO. 27R35, 27R36, 27R37, 27R38, TEMPORARY BRIDGE NO. 99208

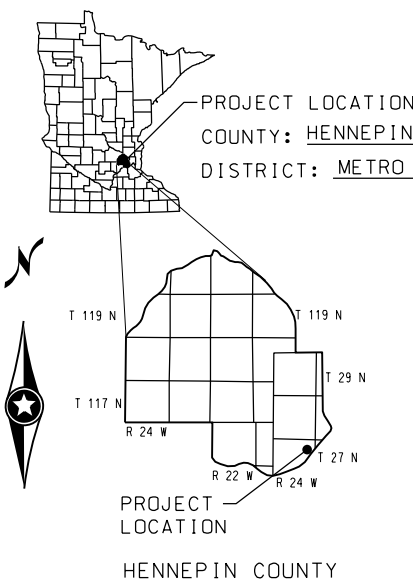
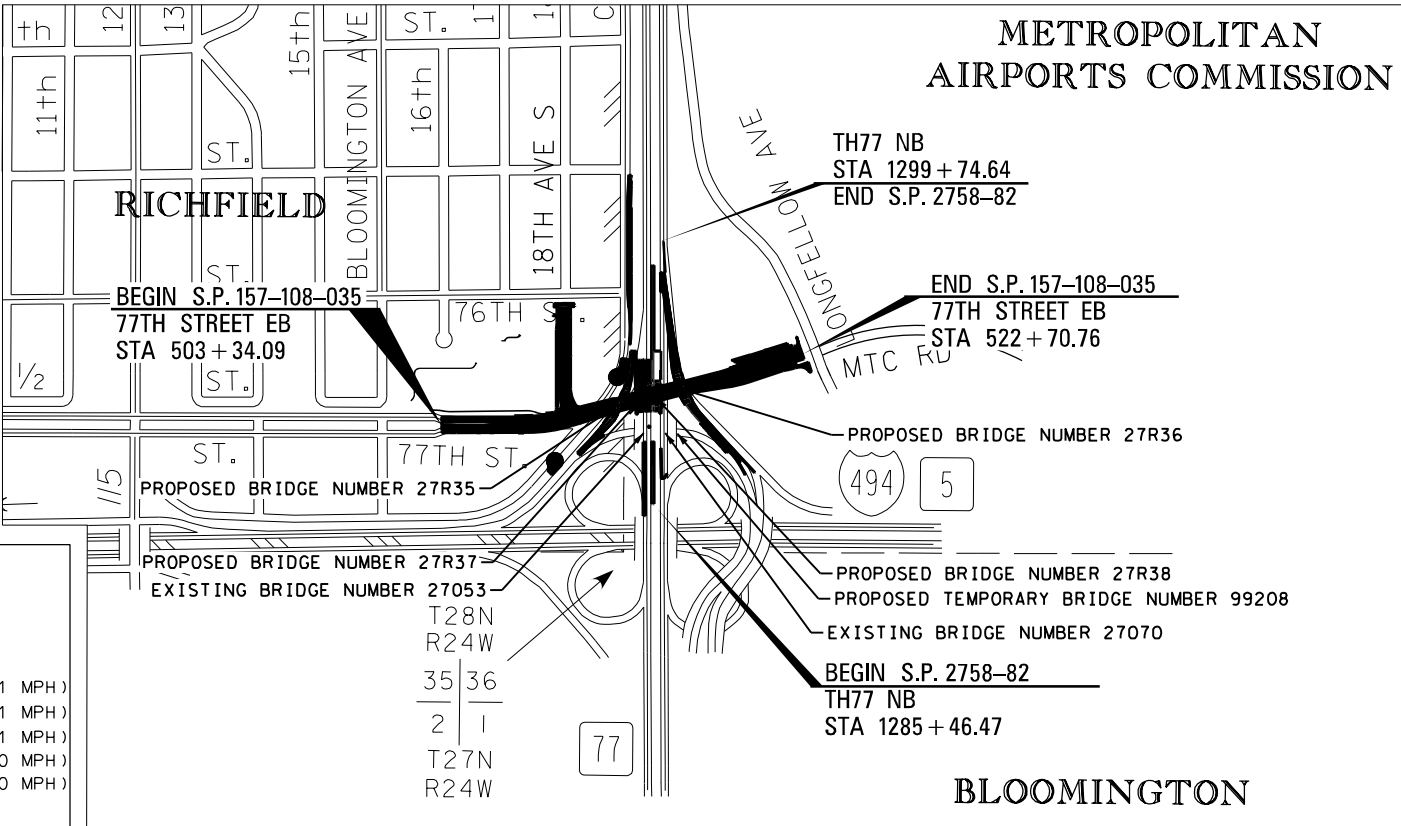
S.P. 157-108-035 LOCATED ON 77TH STREET E. BETWEEN BLOOMINGTON AVE S AND LONGFELLOW AVE
(Geographic Description)

S.P. 2758-82 LOCATED ON T.H. 77 BETWEEN 100 FT. NORTH OF T.H. 494 AND 1520 FT. NORTH OF T.H. 494
(Geographic Description) Commencing at the Southeast Corner of Section 35, Township 28, Range 24, Hennepin County, MN; thence North along the East line thereof to the centerline of 77th Street; thence Easterly and Westerly along the centerline of 77th Street 1000.00 feet and there terminating.

77TH STREET
S.P. 157-108-035
GROSS LENGTH.....1936.67 FEET.....0.367 MILES
BRIDGES-LENGTH..... FEET..... MILES
EXCEPTIONS-LENGTH..... FEET..... MILES
NET LENGTH.....1936.67 FEET.....0.367 MILES
LENGTH BASED ON 77TH ST. EB ALIGNMENT

TH77
S.P. 2758-82
GROSS LENGTH.....1428.17 FEET.....0.271 MILES
BRIDGES-LENGTH.....347.75 FEET.....0.066 MILES
EXCEPTIONS-LENGTH..... FEET..... MILES
NET LENGTH.....1428.17 FEET.....0.271 MILES
REF POINT: 009+00.124 TO REF POINT: 009+00.387
LENGTH BASED ON TH 77 NB ALIGNMENT

AGREEMENT NO. 1032757
CITY OF RICHFIELD
SP 2758-82 (TH 77 = 279)
STPF 2719 (097)
METRO DISTRICT



WARNING:
HIGH PRESSURE PIPELINE(S)

BIKE PATH DESIGN DESIGNATION:
DESIGN SPEED (MPH) 20
BASED ON 4.5 FT HEIGHT OF EYE
0.0 FT HEIGHT OF OBJECT
DESIGN SPEED NOT ACHIEVED AT:
STA: 200+40.15 TO STA: 200+63.48 (11 MPH)
STA: 201+75.21 TO STA: 202+18.90 (11 MPH)
STA: 204+80.01 TO STA: 205+15.54 (11 MPH)
STA: 300+32.29 TO STA: 300+48.00 (10 MPH)
STA: 300+85.13 TO STA: 301+01.01 (10 MPH)

77TH STREET DESIGN DESIGNATION			
R VALUE	= 15	Σ N18 (20)	1,356,000
ADT (CURRENT YEAR) 2021	= 12,500	DESIGN SPEED	40
ADT (FUTURE YEAR) 2041	= 13,850	BASED ON STOPPING SIGHT DISTANCE	
DHV (DESIGN HR. VOL.)	= 1,385	HEIGHT OF EYE 3.5 FT	HEIGHT OF OBJECT 2.0 FT
D (DIRECTIONAL DISTR.)	= 50%	DESIGN SPEED NOT ACHIEVED AT:	
T (HEAVY COMMERCIAL)	= 3.6%	STA. TO STA.	
SOIL FACTOR		STA. TO STA.	
DESIGN LOAD	10 TON		
FUNC. CLASSIFICATION	MINOR ARTERIAL	SHOULDER WIDTH	NA
NO. OF TRAFFIC LANES	4	NO. OF PARKING LANES	NONE

TH77 DESIGN DESIGNATION			
R VALUE	= 15	Σ N18 (20)	5,723,000
ADT (CURRENT YEAR) 2021	= 68,000	DESIGN SPEED	70
ADT (FUTURE YEAR) 2041	= 75,000	BASED ON STOPPING SIGHT DISTANCE	
DHV (DESIGN HR. VOL.)	= 7,500	HEIGHT OF EYE 3.5 FT	HEIGHT OF OBJECT 2.0 FT
D (DIRECTIONAL DISTR.)	= 50%	DESIGN SPEED NOT ACHIEVED AT:	
T (HEAVY COMMERCIAL)	= 3.0%	STA. TO STA.	MPH
SOIL FACTOR		STA. TO STA.	MPH
DESIGN LOAD	10 TON		
FUNC. CLASSIFICATION	PRINCIPAL ARTERIAL	SHOULDER WIDTH	6' - 10'
NO. OF TRAFFIC LANES	4	NO. OF PARKING LANES	NONE

SCALES
PLAN 50'
PROFILE 50'
INDEX MAP 1000'
GENERAL LAYOUT 100'

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST EDITION OF THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 3802, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME:..... LICENSE #.....
DATE:..... SIGNATURE:.....

STATE PROJ NO CHARGE IDENTIFIER

.....
.....
.....
.....

MINN. PROJECT NO. STPF 2719(097)

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

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297 - 317	SIGNING & STRIPING PLAN
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L1 - L11	WASHINGTON PARK PLAN
X1 - X42	CROSS SECTIONS

SHEET NO. 82 - 83, 242 - 248, AND 317
HAVE BEEN REMOVED FROM THIS PLAN

SHEET NO. 35A HAS BEEN ADDED TO THIS PLAN

THIS PLAN CONTAINS 407 SHEETS

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

SIGNATURE:..... PRINTED NAME: NICHOLAS E. HENTGES, PE
DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE: 04/09/2021 LICENSE NUMBER: 44620

RECOMMENDED FOR APPROVAL	04/28/2021
OFFICE OF LAND MANAGEMENT APPROVAL	Julie Groetsch	Digitally signed by Julie Groetsch Date: 2021.05.03 08:18:40 -05'00'
APPROVED	Tom Styrbicki	Digitally signed by Tom Styrbicki Date: 2021.05.03 11:57:37 -05'00'
APPROVED	Dan Erickson	Digitally signed by Dan Erickson Date: 2021.04.29 10:50:42 -05'00'
APPROVED	Dan Erickson	Digitally signed by Dan Erickson Date: 2021.04.29 10:51:30 -05'00'

S.P. 2758-82 (TH 77 = 279), S.P. 157-108-035, S.P. 157-594-003
CITY PROJECT NO. 41300 SHEET 1 OF 363 SHEETS

PLOTTED/REVISED: 4/14/2021

DATE: 4/14/2021
PATH & FILENAME: K:\01301-420\Cad\Plan\30142-tsh.dgn

LEGEND

SHEET NO.	DESCRIPTION
(XXX)	MISCELLANEOUS REMOVAL PLAN
XX	CONSTRUCTION PLAN
(XXX)	DRAINAGE PLAN
(XXX)	EROSION CONTROL PLAN
(XXX)	TURF ESTABLISHMENT PLAN
XX	SIGNING & STRIPING PLAN

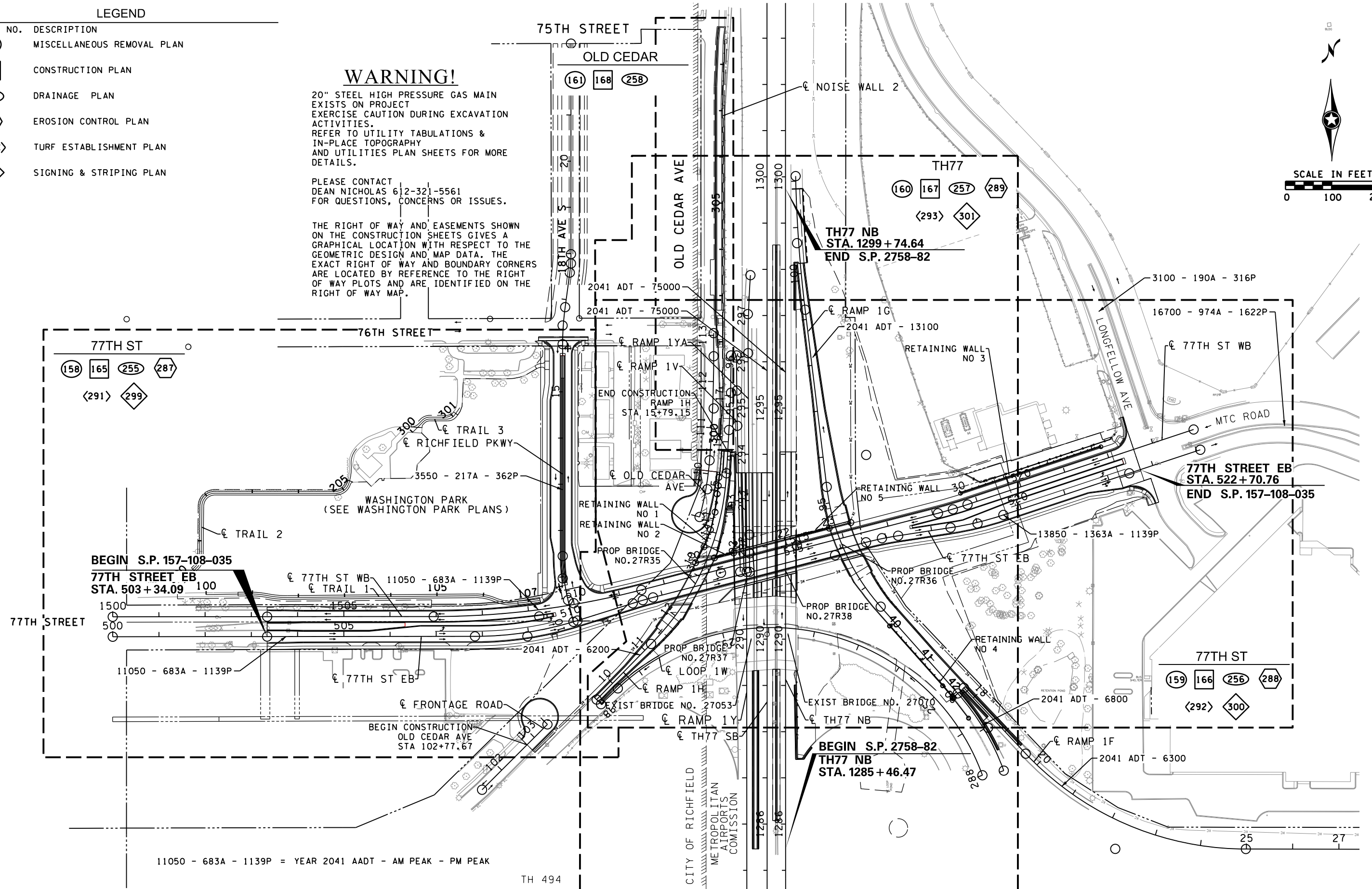
WARNING!

20" STEEL HIGH PRESSURE GAS MAIN EXISTS ON PROJECT
EXERCISE CAUTION DURING EXCAVATION ACTIVITIES.
REFER TO UTILITY TABULATIONS & IN-PLACE TOPOGRAPHY AND UTILITIES PLAN SHEETS FOR MORE DETAILS.

PLEASE CONTACT
DEAN NICHOLAS 612-321-5561
FOR QUESTIONS, CONCERNS OR ISSUES.

THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVES A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLOTS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP.

SCALE IN FEET
0 100 200



11050 - 683A - 1139P = YEAR 2041 AADT - AM PEAK - PM PEAK

TH 494

DATE: 4/9/2021 4:05:12 PM
PATH & FILENAME: K:\30301-420\CorPlan\30142-9\01.dgn

NO.	DATE	BY	CHK	REVISIONS

Design By:	MAN-O
Plan By:	MAN-O
Checked By:	CJB
Approved By:	NEH
CERTIFIED BY:	
LICENSED PROFESSIONAL ENGINEER -	DEAN NICHOLAS, PE
DATE:	04/09/2021
LICENSE NO.	44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

GENERAL LAYOUT
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
2
OF
363
SHEETS

DATE: 4/14/2021 12:54:29 PM
PATH & FILENAME: K:\30301-420\CadPlan\3042-eg01.dgn

ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
		2011.601	AS BUILT		LUMP SUM	1		1			
		2021.501	MOBILIZATION		LUMP SUM	1	0.22	0.60	0.16	0.01	0.01
		2031.502	FIELD OFFICE TYPE D-MODIFIED	(11)	EACH	1	0.22	0.60	0.16	0.01	0.01
		2031.502	FIELD LABORATORY TYPE DX		EACH	1	0.22	0.60	0.16	0.01	0.01
		2041.610	TRAINEES		HOURL	2200		2200			
B	12	2101.505	CLEARING		ACRE	0.5	0.3		0.2		
B	12	2101.505	GRUBBING		ACRE	0.5	0.3		0.2		
B	12	2101.524	CLEARING		TREE	180	47	87	46		
B	12	2101.524	GRUBBING		TREE	180	47	87	46		
J	85	2102.503	PAVEMENT MARKING REMOVAL		LIN FT	34832	34832				
B	11	2104.502	REMOVE PIPE APRON		EACH	3	1	2			
B	11	2104.502	REMOVE ANCHORAGE ASSEMBLY- PLATE BEAM		EACH	1	1				
B	11	2104.502	REMOVE BOLLARDS		EACH	6			6		
		2104.502	REMOVE PERMANENT BARRICADE		EACH	5			5		
DD	318	2104.502	REMOVE LIGHTING UNIT		EACH	29	18	10	1		
EE	331	2104.502	REMOVE UTILITY VAULT		EACH	3	3				
B	11	2104.502	REMOVE MANHOLE OR CATCH BASIN		EACH	29	12	15	2		
O	250	2104.502	REMOVE MANHOLE	(25)	EACH	6			6		
J	, T	85	, 272	2104.502	REMOVE CASTING		17	2			
		249		2104.502	REMOVE GATE VALVE & BOX		10		7		3
		249		2104.502	REMOVE HYDRANT		3		2		1
DD	, EE	318	, 331	2104.502	REMOVE CABINET FOUNDATION		3	2	1		
		331		2104.502	REMOVE RAMP CONTROL SIGNAL FOUNDATION		4	4			
		331		2104.502	REMOVE FIBER OPTIC VAULT		4	4			
				2104.502	REMOVE DELINEATOR		5	5			
				2104.502	REMOVE MARKER		8	7	1		
				2104.502	REMOVE SIGN TYPE C		26	5	2	3	
				2104.502	REMOVE SIGN TYPE D		2	2			
		163		2104.502	REMOVE SIGN TYPE SPECIAL		1	1			
EE		331		2104.502	REMOVE RAMP CONTROL SIGNAL		3	3			
EE		331		2104.502	REMOVE FLASHER SIGNAL		1	1			
EE		331		2104.502	REMOVE PULL BOX		3	3			
DD	, EE	318	, 331	2104.502	REMOVE HANDHOLE		18				
DD		318		2104.502	REMOVE LIGHT FOUNDATION		24	11	10	3	
DD		318		2104.502	REMOVE SERVICE CABINET		1	1			
B		11		2104.502	REMOVE ENERGY ABSORBING TERMINAL		3	3			
DD		318		2104.502	SALVAGE LIGHTING UNIT		2		2		
EE		331		2104.502	SALVAGE OUTDOOR FIBER SPLICE ENCLOSURE		1	1			
DD	, EE	318	, 331	2104.502	SALVAGE SERVICE CABINET		2	1	1		
W		297		2104.502	SALVAGE SIGN TYPE SPECIAL		2	1	1		
B		12		2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	752	346	83	323
B	, K	12	, 132	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)		LIN FT	12701	12120	181	400
N		249		2104.503	REMOVE WATER MAIN		LIN FT	1500		960	540
B		11		2104.503	REMOVE SEWER PIPE (STORM)		LIN FT	1957	1125	591	241
O		250		2104.503	REMOVE SEWER PIPE (SANITARY)		LIN FT	1618		1618	
B		12		2104.503	REMOVE CURB AND GUTTER		LIN FT	11699	7123	4346	230
B		12		2104.503	REMOVE CONCRETE RETAINING WALL		LIN FT	852	580	272	
B		12		2104.503	REMOVE CHAIN LINK FENCE		LIN FT	2489	1769	140	580
B		11		2104.503	REMOVE GUARDRAIL-PLATE BEAM		LIN FT	950	600	350	

- NOTES
- (1) COLOR TO BE DETERMINED BY THE CITY.
 - (2) HIGH EARLY CONCRETE.
 - (3) BLACK VINYL COATED.
 - (4) SEE TRAFFIC CONTROL TABULATION FOR COLORS.
 - (5) SEE PAVEMENT MARKING TABULATION FOR COLORS.
 - (6) SEE BRIDGE APPROACH PANEL JOINT DETAILS.
 - (7) PLASTIC PIPE MAY BE USED AS OPTION FOR 266 LIN FT, SEE DRAINAGE TAB FOR LOCATIONS.
 - (8) TACK COAT INCIDENTAL.
 - (9) ITEM TO BE USED AT THE REQUEST OF THE ENGINEER, FOR SEDIMENT REMOVAL.
 - (10) TO BE USED FOR GROUNDWATER LOWERING, AND/OR RETENTION AS NECESSARY FOR ANY GRADING, EXCAVATION, AND UTILITY INSTALLATION.
 - (11) SEE SPECIAL PROVISIONS.
 - (12) TO BE USED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
 - (13) TO BE USED ONLY FOR PAVING WIDTHS OF LESS THAN 6 FEET, BITUMINOUS MIXTURE TYPE SPWEB440C
 - (14) TO BE USED FOR DEBRIS REMOVAL WITHIN SLEDDING HILL IN WASHINGTON PARK.
 - (15) COMMON EMBANKMENT DOES NOT INCLUDE BOULEVARD TOPSOIL BORROW QUANTITY.
 - (16) INCLUDES DEWATERING.
 - (17) FOR USE DURING CONSTRUCTION STAGING, TL3.
 - (18) PLASTIC PIPE MAY BE USED AS OPTION FOR 60 LIN FT, SEE DRAINAGE TAB FOR LOCATIONS.
 - (19) PLASTIC PIPE MAY BE USED AS OPTION FOR 220 LIN FT, SEE DRAINAGE TAB FOR LOCATIONS.
 - (20) TEMPORARY SANITARY SEWER BYPASSES.
 - (21) PLASTIC PIPE MAY BE USED AS OPTION FOR 498 LIN FT, SEE DRAINAGE TAB FOR LOCATIONS.
 - (22) SEE RICHFIELD STANDARD DETAIL NO. SAN-06A, SAN-06B
 - (23) 48" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
 - (24) 72" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
 - (25) SANITARY SEWER MANHOLES.
 - (P) DENOTES PLAN QUANTITY.

NO.	DATE	BY	CHK	REVISIONS

Design By:	MAN-O	<div>I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</div> <div>CERTIFIED BY:  NICHOLAS E. HENTGES, PE</div>
Plan By:	MAN-O	
Checked By:	CJB	
Approved By:	NEH	
DATE: 04/09/2021		LICENSE NO. 44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035

SHEET
3
OF
363
SHEETS

DATE: 4/26/2021 10:34:49 AM
PATH & FILENAME: K:\0301-420Ccd\Plan\30142-eg01.dgn

ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
B	12	2104.503	REMOVE CONCRETE BARRIER		LIN FT	580	580				
B	12	2104.503	REMOVE CONCRETE MEDIAN BARRIER		LIN FT	2180	2180				
DD	318	2104.503	REMOVE CABLES		LIN FT	5388	4025	900	463		
O	250	2104.503	REMOVE STEEL CASING		LIN FT	275			275		
O	250	2104.503	REMOVE SANITARY SERVICE PIPE		LIN FT	67			67		
B	11	2104.503	REMOVE FORCE MAIN		LIN FT	1799		1799			
DD	318	2104.503	REMOVE DIRECT BURIED LIGHTING CABLE		LIN FT	4250	4250				
B	12	2104.504	REMOVE CONCRETE WALK		SO YD	1427	518	799	110		
B	12	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT		SO YD	316		316			
B	12	2104.504	REMOVE CONCRETE PAVEMENT		SO YD	1251		535	716		
B	. K	12 . 132	2104.504 REMOVE CONCRETE APPROACH PANEL		SO YD	134	134				
B	. K	12 . 132	2104.504 REMOVE BITUMINOUS PAVEMENT		SO YD	27767	17565	9420	782		
B	11	2104.518	REMOVE WOOD NOISE WALL		SO FT	7116		7116			
B	12	2104.518	REMOVE BITUMINOUS WALK		SO FT	23555	7578	7143	8834		
B	12	2104.518	REMOVE CONCRETE MEDIAN		SO FT	6055	6055				
B	11	2104.518	REMOVE TIMBER DECK		SO FT	472			472		
	159	2104.601	RELOCATE MISCELLANEOUS STRUCTURES		LUMP SUM	1	1				
EE	331	2104.601	REMOVE CABLES		LUMP SUM	1	1				
EE	331	2104.601	HAUL SALVAGED MATERIAL		LUMP SUM	1					1
	L1	2104.609	REMOVE DEBRIS	(14)	TON	100			100		
		2105.601	DEWATERING	(10)	LUMP SUM	1		1			
H	15	2106.507	EXCAVATION - COMMON (P)		CU YD	102618	6459	63320	32839		
H	15	2106.507	EXCAVATION - SUBGRADE (P)		CU YD	8446	2532	4461	1453		
H	15	2106.507	SELECT GRANULAR EMBANKMENT(CV) (P)		CU YD	9160	2742	4965	1453		
H	15	2106.507	COMMON EMBANKMENT (CV) (P)	(15)	CU YD	39963	5025	4615	30323		
A	11	2118.507	AGGREGATE SURFACING (CV) CLASS 2		CU YD	8		8			
		2123.610	STREET SWEEPER (WITH PICKUP BROOM)		hour	150	30	66	54		
		2123.610	1.5 CU YD BACKHOE	(9)	hour	200	30	120	50		
		2130.523	WATER	(12)	M GALLON	220	45	100	75		
A	K	LA	11 132 L1	2211.507	AGGREGATE BASE (CV) CLASS 5 (P)	CU YD	11299	5299	3950	1946	104
A			11	2231.509	BITUMINOUS PATCHING MIXTURE	(13)	TON	923	761	7	155
D	13	2301.502	DOWEL BAR		EACH	150			150		
D	13	2301.504	CONCRETE PAVEMENT 8.0"		SO YD	438			438		
D	13	2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)		EACH	85	23	52	10		
A	11	2331.603	JOINT ADHESIVE		LIN FT	6050	6050				
A	11	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (4,B)	(8)	TON	2634	1299	872	463		
A	. K	11 . 132	2360.509 TYPE SP 12.5 WEARING COURSE MIXTURE (4,C)	(8)	TON	10472	5413	3516	1543		
L	. M	208 . 209	2401.503 TYPE S (TL-4) 36" BARRIER CONCRETE (3S52)		LIN FT	626		626			

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- (6) SEE BRIDGE APPROACH PANEL JOINT DETAILS.
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- (15) COMMON EMBANKMENT DOES NOT INCLUDE BOULEVARD TOPSOIL BORROW QUANTITY.
- (16) INCLUDES DEWATERING.
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- (22) SEE RICHFIELD STANDARD DETAIL NO. SAN-06A, SAN-06B
- (23) 48" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
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NO.	DATE	BY	CHK	REVISIONS	Design By: MAN-O	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. CERTIFIED BY:  LICENSED PROFESSIONAL ENGINEER - THOMAS E. HENTGES, PE DATE: 04/09/2021 LICENSE NO. 44620			77th Street Underpass 77th Street at Trunk Highway 77 City of Richfield, Minnesota	RICHFIELD, MINNESOTA	SHEET 4 OF 363 SHEETS
				Plan By: MAN-O	ESTIMATED QUANTITIES						
				Checked By: CJB	S.P. 2758-82 (TH 77), S.P. 157-108-035						
				Approved By: NEH							

DATE: 4/14/2021 12:54:32 PM
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ESTIMATED QUANTITIES													
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL		
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL			
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY		
E	K	13	132	2406.503	EXPANSION JOINTS, DESIGN E8		LIN FT	352	76	276			
E	K	13	132	2406.504	BRIDGE APPROACH PANELS		SO YD	2095	84	2011			
E		13	203	2406.603	EXPANSION JOINTS, DESIGN E8 SPECIAL	(6)	LIN FT	133		133			
D		13	35	2411.502	CONCRETE INLET PAD		EACH	11		11			
M			209	2411.507	STRUCTURAL CONCRETE (1G52)		CU YD	314		314			
L			208	2411.507	STRUCTURAL CONCRETE (3B52)		CU YD	83		83			
M			209	2411.507	STRUCTURAL CONCRETE (3G52)	(P)	CU YD	459		459			
M			209	2411.507	STRUCTURE EXCAVATION CLASS U	(P)	CU YD	6385		3544	2841		
M			209	2411.508	REINFORCEMENT BARS		POUND	26138		26138			
L	M	208	209	2411.508	REINFORCEMENT BARS (EPOXY COATED)		POUND	64767		64767			
M			209	2411.604	MODULAR BLOCK RETAINING WALL		SO YD	346			346		
CC			236	2411.618	CONCRETE NOISE WALL		SO FT	18265	18265				
M			209	2411.618	ANTI-GRAFFITI COATING	(P)	SO FT	12422		7891	4531		
M			209	2411.618	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	(P)	SO FT	12422		7891	4531		
M			209	2411.618	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	(P)	SO FT	7908		7908			
CC			236	2422.603	CONCRETE POSTS 12" X 18"		LIN FT	250		250			
CC			236	2422.618	WOOD NOISE BARRIER		SO FT	1390		1390			
O			271	2451.507	COARSE FILTER AGGREGATE (CV)		CU YD	900	900				
O			271	2451.507	FINE FILTER AGGREGATE (CV)		CU YD	60	60				
O			271	2451.607	MEDIUM FILTER AGGREGATE (CV)		CU YD	180	180				
E	K	M	13	132	209	2451.607	STRUCTURAL BACKFILL	(P)	CU YD	21689	984	18198	2507
				2452.601	EARTH RETENTION SYSTEM (TEMPORARY)		LUMP SUM	1		1			
S			272	2501.502	24" RC PIPE APRON		EACH	2	1		1		
J			85	2501.502	15" CS SAFETY APRON		EACH	2	2				
J			85	2501.502	18" CS SAFETY APRON		EACH	2	2				
S			272	2501.502	15" RC SAFETY APRON		EACH	1	1				
J			85	2501.503	18" CS PIPE CULVERT		LIN FT	34	34				
			26	2502.503	4" PERF PE PIPE DRAIN		LIN FT	1930		1930			
S			272	2502.503	30" PERF PE PIPE DRAIN (SMOOTH)		LIN FT	1000		1000			
				2502.601	IRRIGATION SYSTEM PROVISION		LUMP SUM	1		1			
				2502.602	4" PVC PIPE DRAIN CLEANOUT		EACH	16		6	10		
J			85	2503.503	15" CS PIPE SEWER		LIN FT	30	30				
S			272	2503.503	15" CP PIPE SEWER (SMOOTH)		LIN FT	1525		270	1255		
S			272	2503.503	18" CP PIPE SEWER (SMOOTH)		LIN FT	61		61			
S			272	2503.503	24" CP PIPE SEWER (SMOOTH)		LIN FT	217		217			
S			272	2503.503	36" CP PIPE SEWER (SMOOTH)		LIN FT	12		12			
P			250	2503.503	6" PVC PIPE SEWER		LIN FT	150			150		
P			250	2503.503	8" PVC PIPE SEWER		LIN FT	589			589		
P			250	2503.503	12" PVC PIPE SEWER		LIN FT	203			203		
P			250	2503.503	15" PVC PIPE SEWER		LIN FT	823			823		
P			250	2503.503	18" PVC PIPE SEWER		LIN FT	421			421		
S			272	2503.503	36" RC PIPE SEWER CLASS V-JACKED		LIN FT	322	322				
S			272	2503.503	28" SPAN RC PIPE-ARCH SEWER CLASS IIA		LIN FT	341		341			
S			272	2503.503	36" SPAN RC PIPE-ARCH SEWER CLASS IIA		LIN FT	15		15			
S			272	2503.503	44" SPAN RC PIPE-ARCH SEWER CLASS IIA		LIN FT	81		15	66		
S			272	2503.503	12" RC PIPE SEWER DESIGN 3006	(11)	LIN FT	90		90			
S			272	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS IV		LIN FT	5	5				
S			272	2503.503	15" RC PIPE SEWER DESIGN 3006	(7)	LIN FT	1882	723	771	388		

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Plan By:	MAN-O	
Checked By:	CJB	
Approved By:	NEH	
DATE:	04/09/2021	LICENSE NO. 44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
5
OF
363
SHEETS

DATE: 4/14/2021 12:54:34 PM
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ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
S	272	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	103	103				
S	272	2503.503	18" RC PIPE SEWER DESIGN 3006		LIN FT	477	38	244	195		
S	272	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	6	6				
S	272	2503.503	24" RC PIPE SEWER DESIGN 3006	(18)	LIN FT	386	60	326			
S	272	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	70		70			
S	272	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS IV	(11)	LIN FT	129		44	85		
S	272	2503.503	36" RC PIPE SEWER DESIGN 3006	(19)	LIN FT	241	222		19		
S	272	2503.503	36" RC PIPE SEWER DESIGN 3006 CLASS III	(21)	LIN FT	498			498		
S	272	2503.503	36" RC PIPE SEWER DESIGN 3006 CLASS IV		LIN FT	81			81		
S	272	2503.503	42" RC PIPE SEWER DESIGN 3006		LIN FT	51			51		
P	250	2503.601	SANITARY SEWER SYSTEM	(20)	LUMP SUM	1			1		
P	250	2503.602	CONNECT TO EXISTING SANITARY SEWER		EACH	4			4		
S	272	2503.602	CONNECT TO EXISTING STORM SEWER		EACH	16	7	8	1		
S	272	2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE		EACH	9	3	2	4		
P	250	2503.602	CONNECT TO EXISTING SANITARY SEWER SERVICE		EACH	1			1		
P	250	2503.602	15"X6" PVC WYE		EACH	1			1		
S	272	2503.602	PLUG & ABANDON PIPE SEWER		EACH	1	1				
P	250	2503.603	VIDEO TAPE PIPE SEWER		LIN FT	2036			2036		
S	272	2503.603	24" STEEL CASING PIPE		LIN FT	98	98				
P	250	2503.603	24" STEEL CASING PIPE (JACKED)		LIN FT	369			369		
S	272	2503.603	36" STEEL CASING PIPE		LIN FT	12		12			
S	272	2503.603	42" STEEL CASING PIPE (JACKED)		LIN FT	381		339	42		
S	272	2503.603	54" STEEL CASING PIPE		LIN FT	34	34				
LA	L1	2504.601	IRRIGATION SYSTEM		LUMP SUM	1			1		
N	249	2504.601	TEMPORARY WATER SERVICE		LUMP SUM	1			0.25		0.75
N	249	2504.602	CONNECT TO EXISTING WATER MAIN		EACH	4			3		1
N	249	2504.602	CONNECT TO EXISTING WATER SERVICE		EACH	4			1		3
N	249	2504.602	HYDRANT		EACH	4			3		1
N	249	2504.602	ADJUST GATE VALVE & BOX		EACH	6			5		1
N	249	2504.602	2" CORPORATION STOP		EACH	3					3
N	249	2504.602	6" GATE VALVE & BOX		EACH	5			4		1
N	249	2504.602	8" GATE VALVE & BOX		EACH	4			3		1
N	249	2504.602	18" GATE VALVE & BOX		EACH	1			1		
N	249	2504.602	2" CURB STOP & BOX		EACH	2					2
N	249	2504.603	2" TYPE K COPPER PIPE		LIN FT	111					111
N	249	2504.603	6" WATERMAIN DUCTILE IRON CL 52		LIN FT	124			101		23
N	249	2504.603	8" WATERMAIN DUCTILE IRON CL 52		LIN FT	1474			1044		430
N	249	2504.604	4" INSULATION		SO YD	26			6		20
N	249	2504.608	DUCTILE IRON FITTINGS		POUND	1356			1013		343
J	. T	85 . 272	2506.502	CASTING ASSEMBLY		EACH	80	44	28	8	
P	. T	250 . 272	2506.502	ADJUST FRAME & RING CASTING		EACH	7		2	5	
		272	2506.503	CONST DRAINAGE STRUCTURE DESIGN F		LIN FT	10	10			
		272	2506.503	CONST DRAINAGE STRUCTURE DESIGN G		LIN FT	4	4			
J	. T	85 . 272	2506.503	CONST DRAINAGE STRUCTURE DESIGN H		LIN FT	35	35			
		272	2506.503	CONST DRAINAGE STRUCTURE DESIGN SD-60		LIN FT	9		9		
		272	2506.503	CONST DRAINAGE STRUCTURE DES 48-4020		LIN FT	186	70	91	25	
		272	2506.503	CONST DRAINAGE STRUCTURE DES 54-4020		LIN FT	5		5		
		272	2506.503	CONST DRAINAGE STRUCTURE DES 60-4020		LIN FT	51	32	19		
		272	2506.503	CONST DRAINAGE STRUCTURE DES 72-4020		LIN FT	17	11	6		
		272	2506.503	CONST DRAINAGE STRUCTURE DES 84-4020		LIN FT	30	30			
		272	2506.503	CONST DRAINAGE STRUCTURE DES 96-4020		LIN FT	23	14	9		

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Plan By:	MAN-O		
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Approved By:	NEH		
DATE:	04/09/2021	LICENSE NO.	44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
6
OF
363
SHEETS

DATE: 4/14/2021 12:54:36 PM
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ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
T	272	2506.503	RECONSTRUCT DRAINAGE STRUCTURE		LIN FT	2			2		
		2506.601	CONTROL STRUCTURE	(16)	LUMP SUM	1		1			
P	250	2506.602	SEAL MANHOLE		EACH	18			18		
T	272 , 277	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 1		EACH	29	2	17	10		
T	272 , 278	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 2		EACH	1			1		
T	272 , 279	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 3		EACH	1			1		
T	272 , 280	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 5		EACH	6		5	1		
T	272 , 281	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 6		EACH	8		8			
T	272 , 282	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 7		EACH	20		10	10		
T	272 , 283	2506.602	CONST DRAINAGE STRUCTURE DESIGN SPEC 8		EACH	3		3			
P	250	2506.602	RECONSTRUCT DRAINAGE STRUCTURE SPECIAL	(23)	EACH	2			2		
P	250	2506.602	CASTING ASSEMBLY SPECIAL	(22)	EACH	14			14		
P	250	2506.603	CONST DRAINAGE STRUCTURE DESIGN SPEC 9	(23)	LIN FT	164			164		
P	250	2506.603	CONST DRAINAGE STRUCTURE DESIGN SPEC 10	(24)	LIN FT	15			15		
O	271	2511.504	GEOTEXTILE FILTER TYPE 1		SO YD	3437	3437				
S	272	2511.504	GEOTEXTILE FILTER TYPE 4		SO YD	63	30	33			
S	272	2511.507	RANDOM RIPRAP CLASS III		CU YD	17	8	9			
D , LA	13 , L1	2521.518	4" CONCRETE WALK		SO FT	36602	15556	13915	7131		
D	13 , 26	2521.518	4" CONCRETE WALK SPECIAL		SO FT	7758		5838	1920		
D	13	2521.518	6" CONCRETE WALK		SO FT	2896	361	2045	490		
A , LA	11 , L1	2521.518	3" BITUMINOUS WALK		SO FT	35653	6071	12933	11073	5576	
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN B424		LIN FT	1290	1290				
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN B612		LIN FT	2222		1245	977		
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN B618		LIN FT	6366	731	4315	1320		
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN B624		LIN FT	576	576				
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN B660		LIN FT	115		115			
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN D418		LIN FT	987		987			
D	13	2531.503	CONCRETE CURB & GUTTER DESIGN D424		LIN FT	2776	2776				
D	13	2531.504	8" CONCRETE DRIVEWAY PAVEMENT	(2)	SO YD	178		178			
D	13	2531.618	TRUNCATED DOMES		SO FT	320	32	220	68		
C	12	2533.503	CONC MED BAR & GL SCR DES 8309 TYPE AL		LIN FT	60	60				
C	12	2533.503	CONC MED BAR & GL SCR D 8309 TYPE AA STP		LIN FT	817	817				
C	12	2533.503	CONC MED BAR & GL SCR DES 8309 TYPE TRAN		LIN FT	120	120				
J	85	2533.503	PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337		LIN FT	2610	2610				
J	85	2533.503	PORTABLE PREC CONC BAR DES 8337-ANCHORED		LIN FT	440	440				
J	85	2533.503	RELOCATE PORT PRECAST CONC BAR DES 8337		LIN FT	1164	1164				
LA	L1	2545.501	LIGHTING SYSTEM 'A'		LUMP SUM	1			1		
LA	L1	2545.501	LIGHTING SYSTEM 'B'		LUMP SUM	1			1		
DD	318 , 320	2545.502	LIGHTING UNIT TYPE SPECIAL		EACH	4		4			
DD	318 , 320	2545.502	LIGHTING UNIT TYPE SPECIAL 1		EACH	14		14			
DD	318 , 320	2545.502	LIGHTING UNIT TYPE SPECIAL 2		EACH	6		4	2		
DD	318 , 320	2545.502	LIGHTING UNIT TYPE SPECIAL 3		EACH	12		12			
DD	318	2545.502	LIGHTING UNIT TYPE 6B-40		EACH	2	2				
DD	318	2545.502	LIGHTING UNIT TYPE 6B-49		EACH	1	1				
DD	318	2545.502	LIGHTING UNIT TYPE 6BD-49		EACH	5	5				
DD	318	2545.502	LIGHTING UNIT TYPE 9-40		EACH	8	8				
DD	318	2545.502	LIGHTING UNIT TYPE 9-49		EACH	2	2				
DD	318	2545.502	LIGHT FOUNDATION DESIGN E		EACH	8	8				

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- (23) 48" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
- (24) 72" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
- (25) SANITARY SEWER MANHOLES.
- (P) DENOTES PLAN QUANTITY.

NO.	DATE	BY	CHK	REVISIONS

Design By:	MAN-O	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Plan By:	MAN-O	
Checked By:	CJB	
Approved By:	NEH	
CERTIFIED BY:		
DATE:	04/09/2021	LICENSE NO. 44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
7
OF
363
SHEETS

DATE: 4/14/2021 12:54:37 PM
PATH & FILENAME: K:\30301-420\CoaPlan\30142-eg01.dgn

ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
DD	318	2545.502	LIGHT FOUNDATION DESIGN E MODIFIED		EACH	12		8	4		
DD	318	2545.502	LIGHT FOUNDATION DESIGN H		EACH	2	2				
DD	318 , 321	2545.502	LIGHT FOUNDATION DESIGN SPECIAL		EACH	14		14			
DD	318	2545.502	SERVICE CABINET -TYPE L1		EACH	1		1			
DD	318	2545.502	SERVICE CABINET -TYPE L2		EACH	1	1				
DD	318	2545.502	SERVICE EQUIPMENT		EACH	3	1	1	1		
DD	318	2545.502	EQUIPMENT PAD		EACH	1			1		
DD	318	2545.502	EQUIPMENT PAD B		EACH	2	1	1			
DD	318	2545.502	HANDHOLE		EACH	7	3	4			
DD	318	2545.503	1.5" NON-METALLIC CONDUIT		LIN FT	8240	2500	4600	1140		
DD	318	2545.503	3" NON-METALLIC CONDUIT		LIN FT	400	400				
DD	318	2545.503	UNDERGROUND WIRE 1/C 4 AWG		LIN FT	39200	16100	19750	3350		
DD	318	2545.503	UNDERGROUND WIRE 1/C 10 AWG		LIN FT	3550			3550		
DD	318	2545.503	DIRECT BURIED LIGHTING CABLE 4/C 4 AWG		LIN FT	6000	6000				
J	85	2545.601	TEMPORARY LIGHTING SYSTEM		LUMP SUM	1		1			
DD	318	2545.602	INSTALL LIGHTING UNIT		EACH	2			2		
DD	318	2545.602	INSTALL SERVICE CABINET		EACH	1			1		
EE	331	2550.502	SERVICE FOUNDATION		EACH	1	1				
EE	331	2550.502	RAMP CONTROL SIGNAL FOUNDATION		EACH	4	4				
EE	331	2550.502	FIBEROPTIC SPLICE VAULT		EACH	1	1				
EE	331	2550.502	BURIED CABLE SIGN		EACH	17	17				
EE	331	2550.502	LOOP DETECTOR SPLICE		EACH	15	15				
EE	331	2550.502	RAMP CONTROL SIGNAL DESIGN ONE-WAY		EACH	2	2				
EE	331	2550.502	RAMP CONTROL SIGNAL DESIGN TWO-WAY		EACH	1	1				
EE	331	2550.502	FLASHER SIGNAL		EACH	1	1				
EE	331	2550.502	SERVICE CABINET		EACH	1	1				
EE	331	2550.503	2" NON-METALLIC CONDUIT		LIN FT	1890	1890				
EE	331	2550.503	3" NON-METALLIC CONDUIT		LIN FT	150	150				
EE	331	2550.503	TELEPHONE CABLE 6 PR NO 19		LIN FT	440	440				
EE	331	2550.503	POWER CABLE 1 CONDUCTOR NO 2		LIN FT	970	970				
EE	331	2550.503	POWER CABLE 1 CONDUCTOR NO 6		LIN FT	2400	2400				
EE	331	2550.503	TELEPHONE CABLE 25 PR NO 19		LIN FT	1420	1420				
EE	331	2550.503	SIGNAL CONTROL CABLE 3 COND NO 14		LIN FT	470	470				
EE	331	2550.503	SIGNAL CONTROL CABLE 6 COND NO 14		LIN FT	2070	2070				
EE	331	2550.503	LEAD-IN CABLE 2 CONDUCTOR NO 14		LIN FT	10480	10480				
EE	331	2550.503	FIBEROPTIC TRUNK CABLE 12MM-18SM		LIN FT	440	440				
EE	331	2550.503	FIBEROPTIC TRUNK CABLE 12MM-48SM		LIN FT	860	860				
EE	331	2550.503	FIBEROPTIC TRUNK CABLE 36SM		LIN FT	1420	1420				
EE	331	2550.601	TEMPORARY COMMUNICATION SYSTEM		LUMP SUM	1	1				
EE	331	2550.601	FIBER OPTIC CABLE TESTING		LUMP SUM	1	1				
EE	331	2550.602	MODIFY SERVICE EQUIPMENT		EACH	1	1				
EE	331	2550.602	OUTDOOR FIBER SPLICE ENCLOSURE		EACH	2	2				
EE	331	2550.602	FIBER OPTIC CABLE SPLICING		EACH	4	4				
EE	331	2550.602	PULL VAULT		EACH	10	10				
EE	331	2550.602	LOOP DETECTOR DESIGN PREFORMED		EACH	3	3				
EE	331	2550.602	LOOP DETECTOR DESIGN SAWCUT		EACH	1	1				
EE	331	2550.603	REMOVE CONDUIT		LIN FT	3870	3870				
EE	331	2550.603	REROUTE CABLE		LIN FT	600	600				
EE	331	2550.603	1.5" BORED CONDUIT		LIN FT	1060	1060				
EE	331	2550.603	2" BORED CONDUIT		LIN FT	1580	1580				
EE	331	2550.603	3" BORED CONDUIT		LIN FT	620	620				
S	272	2554.502	GUIDE POST TYPE B		EACH	15	13	1	1		

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Plan By:	MAN-O		
Checked By:	CJB		
Approved By:	NEH		
DATE:	04/09/2021	LICENSE NO.	44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
8
OF
363
SHEETS

DATE: 4/14/2021 12:54:39 PM
PATH & FILENAME: K:\0301-420-CodPlan\N30142-eg01.dgn

ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
						ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY	ESTIMATED QUANTITY
C	12	2554.502	ANCHORAGE ASSEMBLY - TYPE 31		EACH	1	1				
C	12	2554.502	END TREATMENT - TANGENT TERMINAL		EACH	2	2				
C	12 , 64	2554.503	TRAFFIC BARRIER DESIGN SPECIAL		LIN FT	25	25				
C	12	2554.503	TRAFFIC BARRIER DESIGN BULLNOSE		LIN FT	100	100				
C	12	2554.503	TRAFFIC BARRIER DESIGN TYPE 31		LIN FT	200	200				
C	12	2554.503	TRAFFIC BARRIER DESIGN TRANS TYPE 31		LIN FT	100	100				
C	12	2554.503	TRAFFIC BARRIER DESIGN B8338		LIN FT	338			338		
J	85 , 35A	2554.602	GUARDRAIL TRANSITION CONNECTION		EACH	4	4				
V	295	2557.502	ELECTRICAL GROUND		EACH	4	1	2	1		
M	209	2557.503	WIRE FENCE DESIGN S-1		LIN FT	153		153			
V	295	2557.503	WIRE FENCE DESIGN 48V-9322	(3)	LIN FT	125		125			
V	295	2557.503	WIRE FENCE DESIGN 60V-9322	(3)	LIN FT	1575	1360	215			
V	295	2557.503	WIRE FENCE DESIGN 72-9322		LIN FT	240			240		
V	295	2557.503	WIRE FENCE DESIGN 72V-9322	(3)	LIN FT	360			360		
LA	L1 , L4	2557.603	FENCE DESIGN SPECIAL		LIN FT	226			226		
		2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.22	0.60	0.16	0.01	0.01
		2563.601	ALTERNATE PEDESTRIAN ROUTE		LUMP SUM	1		1			
J	85	2563.602	MEDIAN BARRIER DELINEATOR		EACH	155	155				
		2563.613	WORKERS PRESENT SPEED LIMIT		UNIT DAY	50	50				
		2563.613	TRUCK MOUNTED IMPACT ATTENUATOR		UNIT DAY	50	50				
J	85	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN		UNIT DAY	120	120				
J	85	2563.615	TEMPORARY IMPACT ATTENUATOR	(17)	ASSEMBLY	9	9				
J	85	2563.615	RELOCATE TEMPORARY IMPACT ATTENUATOR	(17)	ASSEMBLY	10	10				
Z	297	2564.502	DELINEATOR TYPE X4-6		EACH	7	7				
Z	297	2564.502	OBJECT MARKER TYPE X4-2		EACH	6	1	3	2		
Z	297	2564.502	OBJECT MARKER TYPE X4-4		EACH	1	1				
Z	297	2564.502	OBJECT MARKER TYPE X4-5		EACH	8	8				
Z	297	2564.502	OBJECT MARKER TYPE X4-11		EACH	6	6				
		2564.502	INFILTRATION AREA MARKER X3-6A		EACH	3	3				
Y	297	2564.518	SIGN PANELS TYPE C		SO FT	266	78	104	78	6	
AA	297	2564.518	SIGN PANELS TYPE D		SO FT	63	63				
X	297	2564.518	SIGN PANELS TYPE SPECIAL		SO FT	26		26			
W	297	2564.602	INSTALL SIGN TYPE SPECIAL		EACH	2		1	1		
LA	L1	2571.524	DECIDUOUS TREE 8' HT B&B		TREE	3			3		
LA	L1	2571.524	DECIDUOUS TREE 2.5" CAL B&B		TREE	62			28		34
LA	L1	2571.527	PERENNIAL NO 1 CONT		PLANT	925					925
		2573.501	STABILIZED CONSTRUCTION EXIT		LUMP SUM	1		1			
		2573.501	EROSION CONTROL SUPERVISOR		LUMP SUM	1		1			
G	14	2573.502	STORM DRAIN INLET PROTECTION		EACH	94	28	56	10		
G	14	2573.502	CULVERT END CONTROLS		EACH	4	4				
G	14	2573.503	SILT FENCE, TYPE MS		LIN FT	9405	5665	3190	550		
G	14	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER		LIN FT	466	466				
G	14	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST		LIN FT	1200	600	400	200		
T	272	2573.602	SEDIMENT CONTROL STRUCTURE		EACH	1	1				
LA	L1	2574.507	BOULEVARD TOPSOIL BORROW	(11)	CU YD	794			794		
F , G	14	2574.508	FERTILIZER TYPE 1		POUND	2866	2206	561	99		
F , LA	14 , L1	2574.508	FERTILIZER TYPE 3		POUND	1728	122	543	1063		
F	14	2575.504	SODDING TYPE LAWN		SO YD	6482		5932	550		

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Plan By: MAN-O	
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77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035


SHEET
9
OF
363
SHEETS

DATE: 4/14/2021 12:54:41 PM
PATH & FILENAME: K:\0301-420\CadPlan\30142-eg01.dgn

ESTIMATED QUANTITIES											
TAB ID	SHEET NO.	ITEM	DESCRIPTION	NOTES	UNIT	PROJECT TOTAL	SP 157-108-035 FEDERAL PARTICIPATION				LOCAL
							SP 2758-82 MNDOT	SP 157-594-003 LRIP	MSAS	LOCAL	
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F	14	2575.505	SEEDING		ACRE	7.3	5	2.4	0.4		
F	14	2575.505	DISK ANCHORING		ACRE	4.1	2	1.7			
LA	L1	2575.507	MULCH MATERIAL TYPE 6		CU YD	93			93		
G	14	2575.508	SEED MIXTURE 21-111		POUND	696	506	190			
F	14	2575.508	SEED MIXTURE 25-141		POUND	115	21	94			
F	14	2575.508	SEED MIXTURE 35-241		POUND	183	148	23	12		
G	14	2575.508	HYDRAULIC BONDED FIBER MATRIX		POUND	12200	7514	4686			
LA	L1	2575.509	MULCH MATERIAL TYPE 1		TON	8			8		
F	14	2575.509	MULCH MATERIAL TYPE 3		TON	7	4		3		
G	14	2575.523	RAPID STABILIZATION METHOD 3		M GALLON	53	18	29	6		
F	G	LA	14	14	L1	2575.604	ROLLED EROSION PREVENTION CATEGORY 20				
F			14			2575.607	LANDSCAPE ROCK				
LA	L1		L3			2575.608	SEED MIXTURE SPECIAL				
J	85	2582.503	4' SOLID LINE PAINT (WR)	(4)	LIN FT	37586	37586				
J	85	2582.503	4' BROKEN LINE PAINT (WR)	(4)	LIN FT	1172	1172				
J	85	2582.503	4' DOTTED LINE PAINT (WR)	(4)	LIN FT	1076	1076				
J	85	2582.503	4' DBLE SOLID LINE PAINT (WR)	(4)	LIN FT	544	544				
BB	298	2582.503	4' SOLID LINE MULTI COMP	(5)	LIN FT	2672	1285	379	1008		
BB	298	2582.503	24" SOLID LINE MULTI COMP	(5)	LIN FT	35		35			
BB	298	2582.503	4' BROKEN LINE MULTI COMP	(5)	LIN FT	946	132	660	154		
BB	298	2582.503	4' DBLE SOLID LINE MULTI COMP	(5)	LIN FT	1166		1056	110		
BB	298	2582.503	4' SOLID LINE MULTI COMP GR IN (WR)	(5)	LIN FT	11845	11845				
BB	298	2582.503	8" SOLID LINE PREF TAPE GR IN (WR)	(5)	LIN FT	1443	1443				
BB	298	2582.503	4' BROKEN LINE PREF TAPE GR IN (WR)	(5)	LIN FT	312	312				
BB	298	2582.503	8" SOLID LINE PREF TAPE GR IN (WR) CONT	(5)	LIN FT	484	484				
BB	298	2582.503	4' BROKEN LINE PREF TAPE GR IN (WR) CONT	(5)	LIN FT	128	128				
BB	298	2582.518	PAVT MSSG MULTI COMP		SO FT	270		34	236		
BB	298	2582.518	CROSSWALK MULTI COMP		SO FT	1109		594	515		

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 - (21) PLASTIC PIPE MAY BE USED AS OPTION FOR 498 LIN FT, SEE DRAINAGE TAB FOR LOCATIONS.
 - (22) SEE RICHFIELD STANDARD DETAIL NO. SAN-06A, SAN-06B
 - (23) 48" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
 - (24) 72" DIAMETER, SEE RICHFIELD STANDARD DETAIL NO. SAN-01
 - (25) SANITARY SEWER MANHOLES.
 - (P) DENOTES PLAN QUANTITY.

NO.	DATE	BY	CHK	REVISIONS

Design By:	MAN-O	<div>I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</div> <div> THOMAS E. HENTGES, PE LICENSED PROFESSIONAL ENGINEER - 44620</div>
Plan By:	MAN-O	
Checked By:	CJB	
Approved By:	NEH	
DATE:	04/09/2021	LICENSE NO. 44620



77th Street Underpass
77th Street at Trunk Highway 77
City of Richfield, Minnesota

RICHFIELD, MINNESOTA

ESTIMATED QUANTITIES
S.P. 2758-82 (TH 77), S.P. 157-108-035

SHEET
10
OF
363
SHEETS