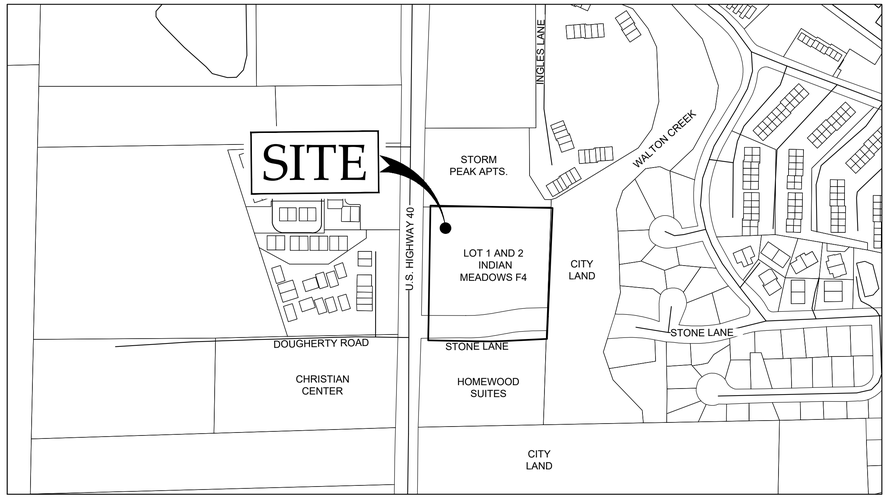
CIVIL CONSTRUCTION PLANS
for Holiday Inn Express and Hotel B
INDIAN MEADOWS FIL. NO. 4, LOTS 1 & 2

3500 S. LINCOLN AVENUE
STEAMBOAT SPRINGS, CO 80487



NORTH

PROJECT VICINITY MAP

SCALE: 1"= 250'

CIVIL SHEET INDEX

CIVIL PLANS

LANDSCAPE PLANS

PROJECT CONTACT LIST

PROJECT OWNER

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PROJECT ARCHITECT

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CIVIL ENGINEER

FOUR POINTS SURVEYING AND ENGINEERING
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Steamboat Springs, CO 80487

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COLORADO REGISTERED PROFESSIONAL ENGINEER — WALTER N. MAGILL

HOLIDAY INN EXPRESS PARKING STALL CALCULATIONS:

NO. OF HOTEL GUEST ROOMS	(90)
STAFF DORMITORY ROOMS	(9)
HOTEL ROOM STALLS REQ'D	(99)
CREDIT FOR TRANSIT PROX., 10%	(-9)
TOTAL STALLS REQ'D,	(90)
TOTAL STALLS PROVIDED	(90)

* ALL PARKING STALLS SHALL BE 9'X18'

HOTEL B PARKING STALL CALCULATIONS:

NO. OF HOTEL GUEST ROOMS	(73)
HOTEL ROOM STALLS REQ'D	(73)
CREDIT FOR TRANSIT PROX., 10%	(-7)
TOTAL STALLS REQ'D,	(66)
TOTAL STALLS PROVIDED	(68)

* ALL PARKING STALLS SHALL BE 9'X18'

GENERAL NOTES:

1. BENCHMARK = FOUND RED PLASTIC CAP ON #5 REBAR IN THE NORTHWEST PROPERTY CORNER. ELEVATION = 6765.29 (SEE EXISTING CONDITIONS PLAN).
2. EXISTING CONDITIONS SURVEYED BY FOUR POINTS SURVEYING & ENGINEERING. TOPOGRAPHY GENERATED FROM A COMBINATION OF FIELD SURVEY DATA AND 2018 ROUTT COUNTY GIS LIDAR DATA.
3. CITY OF STEAMBOAT SPRINGS REVIEW AND APPROVAL IS ONLY FOR GENERAL CONFORMANCE WITH CITY OF STEAMBOAT SPRINGS ENGINEERING AND CDC DESIGN CRITERIA AND CODE. THE CITY IS NOT RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF THE DRAWINGS. DESIGN, DIMENSIONS, AND ELEVATIONS SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE.
4. ONE COPY OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE KEPT ON THE JOB SITE AT ALL TIMES. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR TO VERIFY WITH PROJECT ENGINEER THE LATEST REVISION DATE OF THE APPROVED CONSTRUCTION PLANS.
5. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES. CALL THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987 AND ANY NECESSARY PRIVATE UTILITY TO PERFORM LOCATES PRIOR TO CONDUCTING ANY SITE WORK.
6. ALL INFRASTRUCTURE CONSTRUCTION AND RELATED WORK SHALL CONFORM TO THE CITY OF STEAMBOAT SPRINGS STANDARD SPECIFICATIONS, LATEST REVISION.
7. ALL WATER AND SANITARY SEWER CONSTRUCTION AND RELATED WORK SHALL CONFORM TO MOUNT WERNER WATER STANDARD SPECIFICATIONS, LATEST EDITION.
8. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS REQUIRED TO PERFORM THE WORK SUCH AS RIGHT-OF-WAY PERMIT, GRADING AND EXCAVATION PERMIT, CONSTRUCTION DEWATERING PERMIT, STORM WATER QUALITY PERMIT, ARMY CORP OF ENGINEER PERMIT, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF ALL APPLICABLE CODES, LICENSES, SPECIFICATIONS, AND STANDARDS NECESSARY TO PERFORM THE WORK, AND BE FAMILIAR WITH THEIR CONTENTS PRIOR TO COMMENCING ANY WORK.
9. PRIOR TO ANY WORK IN THE RIGHT-OF-WAY INCLUDING STREET CUTS, CONTACT ROUTT COUNTY ROAD AND BRIDGE FOR PERMIT REQUIREMENTS.
10. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH PROJECT ENGINEER TO IDENTIFY PROJECT INSPECTION AND TESTING REQUIREMENTS. CONTRACTOR SHALL PROVIDE FOR INSPECTIONS AND TESTING AT AN ADEQUATE FREQUENCY FOR THE PROJECT ENGINEER TO DOCUMENT THAT PROJECT IS CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. PRIOR TO MAKING ANY CHANGES TO THE
11. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
12. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL (SIGNS, BARRICADES, FLAGMEN, LIGHTS, ETC) IN ACCORDANCE WITH THE MUTCD, CURRENT EDITION.
13. CONTRACTOR MUST SUBMIT A CONSTRUCTION SITE MANAGEMENT PLAN (CSMP) AND EROSION CONTROL PLAN (ECP) FOR REVIEW AND APPROVAL BY ROUTT COUNTY PLANNING PRIOR TO START OF CONSTRUCTION. THE CSMP AND ECP MUST BE MAINTAINED ON-SITE AND UPDATED AS NEEDED TO REFLECT CURRENT CONDITIONS.
14. THE FOLLOWING PRIVATE IMPROVEMENTS REQUIRE CONSTRUCTION OBSERVATION PER THE CITY OF STEAMBOAT SPRINGS ENGINEERING SERVICES SPECIFICATION OR AS REQUIRED BY THE CITY: WATER, SEWER, AND STORM SEWER.
15. RECORD DRAWINGS ARE REQUIRED FOR: PUBLIC AND PRIVATE WATER AND SEWER.
16. ALL STORMWATER PIPE OUTFALLS REQUIRE FLARED END SECTIONS AND RIPRAP.
17. EXISTING ASPHALT PAVEMENT SHALL BE STRAIGHT SAW CUT WHEN ADJOINING WITH NEW ASPHALT PAVEMENT OR WHEN ACCESS TO UNDERGROUND UTILITIES IS REQUIRED. TACK COAT SHALL BE APPLIED TO ALL EXPOSED SURFACES INCLUDING SAW CUTS, POTHOLES, TRENCHES, AND ASPHALT OVERLAY. ASPHALT PATCHES IN THE RIGHT-OF-WAY SHALL BE PER ROUTT COUNTY ROAD AND BRIDGE SPECIFICATIONS.

REVIEWED FOR CODE COMPLIANCE
01/12/2024

WATER, SEWER AND UTILITY NOTES:

1. EXISTING UTILITY LOCATIONS WERE OBTAINED FROM FIELD LOCATES AND FIELD SURVEYING AND HAVE NOT BEEN VERIFIED WITH ANY ADDITIONAL UNDERGROUND POTHOLING. POTHOLING AND VERIFICATION OF LINE LOCATIONS SHALL BE REQUIRED AT ALL EXISTING UTILITY CROSSINGS.
2. MINIMUM SEPARATION BETWEEN PARALLEL WATER AND SEWER MAINS AND SERVICES IS TEN (10') FEET. MINIMUM SEPARATION BETWEEN PARALLEL WATER AND SEWER SERVICE LINES IS TEN (10') FEET.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MOUNT WERNER WATER STANDARDS AND SPECIFICATIONS, LATEST EDITION.
4. MINIMUM COVER FROM FINISHED GRADE TO TOP OF WATER MAIN LINE IS SEVEN (7') FEET UNLESS OTHERWISE NOTED. ALL WATER SERVICE LINES SHALL BE TYPE "K" COPPER AND SEAMLESS BETWEEN FITTINGS.
5. MINIMUM SEPARATION BETWEEN UTILITY PEDESTALS AND FIRE HYDRANTS IS FIFTEEN (15') FEET. MINIMUM SEPARATION BETWEEN FIRE HYDRANTS, WATER OR SEWER MAINS, AND ENDS OF CULVERTS IS FIVE (5') FEET. MINIMUM SEPARATION BETWEEN WATER AND SEWER SERVICE LINES IS TEN (10') FEET. NO RIP-RAP IS PERMITTED WITHIN TEN (10') FEET OF A SEWER MAIN.
6. VALVES SHALL BE OPERATED BY UTILITY PERSONNEL ONLY.
7. SEWER SERVICES ARE ANTICIPATED TO BE FOUR (4") INCH DIAMETER, SDR 35 PVC, MINIMUM SLOPE OF 2%, UNLESS NOTED OTHERWISE.
8. WATER SERVICES ARE ANTICIPATED TO BE ONE (1") INCH DIAMETER, COPPER TYPE K, UNLESS NOTED OTHERWISE.
9. DISINFECTION, BACTERIOLOGICAL, AND HYDROSTATIC TESTING IS REQUIRED FOR THE 8" DIP WATER/FIRE SERVICE PIPE.
10. ALL MECHANICAL JOINTS, RESTRAINT, THRUST BLOCKS AND CROSSING MUST BE OBSERVED BY THE ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL.
11. MECHANICAL RESTRAINTS AND THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES, REDUCERS AND DEAD ENDS.
12. ALL FITTINGS ASSOCIATED WITH UTILITY INSTALLATION WILL BE ON-SITE PRIOR TO WATER LINE SHUT DOWN.

Project Summary Table - LOT 1 (Holiday Inn Express)			
Zoning	CS		
Frontage (US HWY 40)	200 LF		
Gross Site Area	2.067 Acres (90,038 SF)		
Use Breakdown	**Description**	**Square Footage (Net Floor Area)**	**# of Rooms**
Principal Use	Commercial Lodging		95
Standards	**Zone District Requirements**	**Proposed**	**Variance? (Y/N)**
Lot Area	No Min, No Max	2.067 Acres (90,038 SF)	N
Lot Coverage	No Max		N
Floor Area Ratio	No Max		N
Building Height	63' Max		N
Frontage Building Height	26' min		N
Front Setback	5' Min, 20' Max (with conds.)	114.0'	N (note 2 CS Zoning)
Side Setback	7.5' Min	12.0'	N
Rear Setback	7.5' Min	> 100.0'	N
Second Story Intensity	50% Min	100%	N
Parking (9'X18')	86 Stalls	90	N
Snow Storage	16,640 SF	16,790 SF	N
Lot Width	25' Min	242'	N
Open Space Square Footage	15% Min	30%	N
Fronatge Parking Lot Placement	30' Min	75.0'	N

Project Summary Table - Lot 2 (Hotel B)			
Zoning	CS		
Frontage (US HWY 40)	213 LF		
Gross Site Area	1.808 Acres (78,770 SF)		
Use Breakdown	**Description**	**Square Footage (Net Floor Area)**	**# of Rooms**
Principal Use	Commercial Lodging		73
Standards	**Zone District Requirements**	**Proposed**	**Variance? (Y/N)**
Lot Area	No Min, No Max	1.808 Acres (78,770 SF)	N
Lot Coverage	No Max		N
Floor Area Ratio	No Max		N
Building Height	63' Max		N
Frontage Building Height	26' min		N
Front Setback	5' Min, 20' Max (with conds.)	114.0'	N (note 2 CS Zoning)
Side Setback	7.5' Min	12.0'	N
Rear Setback	7.5' Min	> 100.0'	N
Second Story Intensity	50% Min	100%	N
Parking (9'X18')	66 Stalls	66	N
Snow Storage	14,490 SF	15,330 SF	N
Lot Width	25' Min	160'	N
Open Space Square Footage	15% Min	34%	N
Fronatge Parking Lot Placement	30' Min	75.0'	N

LEGEND	EXISTING	PROPOSED
PROPERTY BOUNDARY		
SECTION LINE		
LOT BOUNDARY		
EASEMENT		
SETBACK		
EDGE OF ASPHALT		
CURB		
CURB FLOWLINE		
1/2 FT CONTOUR	5282	5282
5/10 FT CONTOUR	5280	5280
EDGE OF GRAVEL		
CENTER LINE OF DITCH		
WATER MAIN	XW	W
CURB STOP, GV, FH		
SIGN		
LIGHT POLE		
SEWER MAIN	XS	S
MANHOLE AND CLEANOUTS		
ELECTRICAL - UNDERGROUND	XE	UGE
ELECTRICAL - OVERHEAD	XE	OHE
ELECTRICAL - OVERHEAD - HIGH VOLTAGE		HVE
ELECTRICAL-PRIMARY	XE	E
FIBER OPTIC		FO
TELEPHONE	XT	T
UNDERGROUND		UGT
UTILITY PEDESTALS	J T E TV	J T E TV
POWER POLE/ LIGHT POLE		
GAS	XG	GAS
FENCE	X	X
WOODEN FENCE		
PROPOSED EDGE OF CONCRETE		
DECK		
PROPOSED BUILDING		
OVERHANG		
SIDEWALK/ BOARDWALK		
BASE FLOOD CROSS SECTION		
FEMA SFHA BOUNDARY		
WALL		
VEGETATION OUTLINE		
PROPERTY CORNERS		
STORM INLET		
CULVERT		
ASPHALT		
CONCRETE		
GRAVEL/SOFT SURFACE		
ROCK/RIP RAP		
WETLANDS/WETLANDS REMOVAL		

ABBREVIATIONS:

DETAIL OR SECT # (A) / SHEET # (C2)

AFF	ABOVE FINISHED FLOOR	INV	INVERT
AP	ANGLE POINT	LF	LINEAL FEET
APR	APPROXIMATE	LP	LOW POINT
A	ASPHALT	MAX	MAXIMUM
BFE	BASE FLOOD ELEVATION	MIN	MINIMUM
BFF	BASEMENT FINISH FLOOR	MOD	MODULE
BOW	BOTTOM OF WALL	NG	NATURAL GROUND
BVC	BEGIN VERTICAL CURVE	NO	NUMBER
BW	BACK OF WALK	NTS	NOT TO SCALE
C	CURB	O/S	OFFSET
CL	CENTERLINE	OHD	OVERHEAD DOOR
CLNG	CEILING	PC	POINT OF CURVATURE
CMP	CORRUGATED METAL PIPE	PED	PEDESTAL
C/O	CLEAN OUT	PI	POINT OF INTERSECTION
CONC	CONCRETE	PL	PROPERTY LINE
CNR	CORNER	PR	PROPOSED
CR	CURB RETURN	PT	POINT
CS	CURB STOP	PVC	POINT OF VERTICAL CURVE
D	DEPTH	PVC	POLYVINYL CHLORIDE PIPE
DI	DRAIN INLET	PVI	POINT OF VERTICAL INTERSECTION
DIP	DUCTILE IRON PIPE	RD	ROAD
DMH	DRAINAGE MANHOLE	R	RADIUS
DRN	DRAIN	RO	ROUGH OPENING
DT	DITCH	ROW	RIGHT-OF-WAY
DW	DRIVEWAY	RW	RETAINING WALL
EA	EACH	SFHA	SPECIAL FLOOD HAZARD AREA
EG	EXISTING GRADE	SQFT	SQUARE FEET
ELEV	ELEVATION	SMH	SEWER MANHOLE
ENGR	ENGINEER	SS	SANITARY SEWER
EOA	EDGE OF ASPHALT	STA	STATION
EOW	EDGE OF WALK	STRUCT	STRUCTURAL
EX	EXISTING	SW	SIDEWALK
FES	FLARED END SECTION	TB	THRUST BLOCK
FFE	FINISH FLOOR ELEVATION	TBD	TO BE DETERMINED
FG	FINISH GRADE	TBR	TO BE REMOVED
FH	FIRE HYDRANT	TBW	TOP BACK OF WALK
FL	FLOW LINE	TEL	TELEPHONE
FT	FOOT OR FEET	TOP	TOP OF PIPE
GFE	GARAGE FFE	TO	TOP OF
GB	GRADE BREAK	TYP	TYPICAL
GYP	GYPSUM	VOL	VOLUME
GV	GATE VALVE	VP	VALLEY PAN
HC	HANDICAP RAMP	W	WIDTH
HP	HIGH POINT	WL	WATERLINE
IN	INLET	W/	WITH
		WQ	WATER QUALITY

DEVELOPMENT PLANS PREPARED BY FOUR POINTS SURVEYING & ENGINEERING	No.	DATE	REVISIONS	INT
DATE: 11/17/2023	1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK QUANTITIES	
JOB #: 1448-005				
DRAWN BY: AP/AAC/DSC/WNM	2	10/25/23	HOTEL B SITE REVISIONS	
DESIGN BY: AP/AAC/DSC/WNM				
REVIEW BY: FPSE				
IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.				

FOUR POINTS SURVEYING ENGINEERING

Four Points Surveying & Engineering
440 S. Lincoln Ave, Suite 4A
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
matthew@fourpointsse.com

SHEET #

C1

PLOT DATE: 9/14/2023 2:06 PM BY: RICHIE SORONA CTB: PSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\PSE\CONSTRUCTION PLANS\1448-005 EXISTING CONDITIONS.DWG

412.61
S00° 57' 00"W

US HIGHWAY 40
RECEPTION NO. 680280 (115' R.O.W.)

15.0' UTILITY EASEMENT PER PLAT

COTTONWOOD CLUSTER (6) > 2" DIA

EXISTING FIBER OPTIC & ELECTRICAL LINES

50.0' LANDSCAPE BUFFER & PUBLIC UTILITY EASEMENT PER PLAT

EXISTING WETLANDS (TYP.)

VALLEY PAN

COMMERCIAL SIGN "FAIRFIELD INN"

12" DIP WATER MAIN

CONC PEDESTRIAN SIDEWALK

20'x20' SIGN EASEMENT PER PLAT

8.0'

35.0' WIDE PUBLIC UTILITY EASEMENT

20.0' UTILITY EASEMENT DEDICATED TO MWW&S BY FINAL PLAT FILE NO. 14302

ELECTRICAL PEDESTAL

FIRE HYDANT ASSEMBLY

HOMEWOOD SUITES MAIN ENTRANCE

CITY BUS SIGN

STOP SIGN

BURIED ELECTRICAL

50.0' WIDE PUBLIC ACCESS, UNDERGROUND UTILITY & EMERGENCY SERVICE VEHICLE ACCESS EASEMENT

CENTERLINE OF ACCESS DRIVE/ EDGE OF PUBLIC UTIL EASEMENT

OUTDOOR LIGHTPOLES (TYP.)

24.0' WIDE EMERGENCY ACCESS EASEMENT (STORM PEAK APTS)

ACCESS TO STORM PEAK APTS

168.23
S88° 52' 23"E

24'± ACCESS DRIVE (EDGE OF ASPHALT)

15.0'

12" DIP WATER MAIN

24" EX. STORM

6' WIDE STORM INLETS

VALLEY PAN

10' WIDE SNOW REMOVAL & UTILITY EASEMENT BY FINAL PLAT FILE NO. 14302

15.0' WIDE PUBLIC UTILITY EASEMENT PER PLAT

NWCC TEST PIT

EDGE OF MOWED GRASS

STONE LANE

L=102.653, R=1525.150
Δ=3.8564

100-YEAR MODELED BASE FLOOD ELEVATION (TYP) BY WOHNRADE ENGINEERING

BFE=6763.75

BFE=6763.75

LOT 1
INDIAN MEADOWS
FILING NO. 3
3.875 ACRES
168,795 SF

FEMA FLOOPLAIN BOUNDARY

ZONE X

FLOODPLAIN, ZONE AE

BFE=6763.39

N88° 52' 44"W
426.72

8.0' WIDE SIDEWALK (TYP.)

80.0' WIDE RIGHT OF WAY FOR STONE LANE

8' WIDE SIDEWALK (TYP.)

58.2'

STORM PEAK APTS.
(FORMERLY FAIRFIELD INN)

TEMPORARY ACCESS EASEMENT PLAT NO. 14302 (FOR TURN AROUND)

BFE=6764.08

144.36
N87° 16' 14"E

BASE FLOOD ELEVATION CROSS SECTIONS BY WOHNRADE ENGINEERING (TYP)

ENCROACHING AND NON-CONFORMING DUMPSTER ENCLOSURE (PART OF STORM PEAK APTS)

98.4'

TURN AROUND

VALLEY PAN

MAINTENANCE SHED

FIRE HYDRANT

12" DIP WATER MAIN

MH 25.5.2A.9
RIM = 6766.68
INV IN = 6759.09
INV OUT = 6759.03

GAS MAIN BY ATMOS (LOCATION APPROXIMATE, LOCATES HAVE BEEN SCHEDULED AT THE TIME OF THIS PLAN). LOCATE TICKET NO. A204500416, REQUESTED ON FEBRUARY 14, 2022.

8" PVC SEWER MAIN

HOMEWOOD SUITES SECONDARY ACCESS CL

30.0' UNDERGROUND UTILITY EASEMENT DEDICATED TO MWW&S BY FINAL PLAT FILE NO. 14302

MH 25.5.2A.8
RIM = 6767.08
INV IN = 6758.85
INV OUT = 6758.83

MH 25.5.2A.7
RIM = 6765.08
INV IN = 6758.16
INV OUT = 6758.08

MH 25.5.2A.6
RIM = 6765.17
INV IN = 6757.42
INV OUT = 6757.37

5.0' WIDE UTILITY EASEMENT BY FINAL PLAT FILE NO. 14302

10" PVC SEWER MAIN

30.0' UTILITY EASEMENT DEDICATED TO MWW&S BY FINAL PLAT FILE NO. 14302

BLOWOFF HYDRANT

FEMA FLOODWAY BOUNDARY

N02° 25' 53"E
80.12

PARCEL A
INDIAN MEADOWS
SUBDIVISION

FLOODWAY

FLOODPLAIN, ZONE AE

15.0' PUBLIC UTILITY EASEMENT PER PLAT

N02° 25' 53"E
379.71

EXISTING WETLANDS (TYP.)

EXISTING WETLANDS (TYP.)

EXISTING WETLANDS (TYP.)

REVIEWED FOR CODE COMPLIANCE
01/12/2024

FOUR POINTS SURVEYING ENGINEERING
410 S. Lincoln Ave, Unit 15
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
www.fourpointsse.com

No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'

CONTOUR INTERVAL = 2FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24"X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

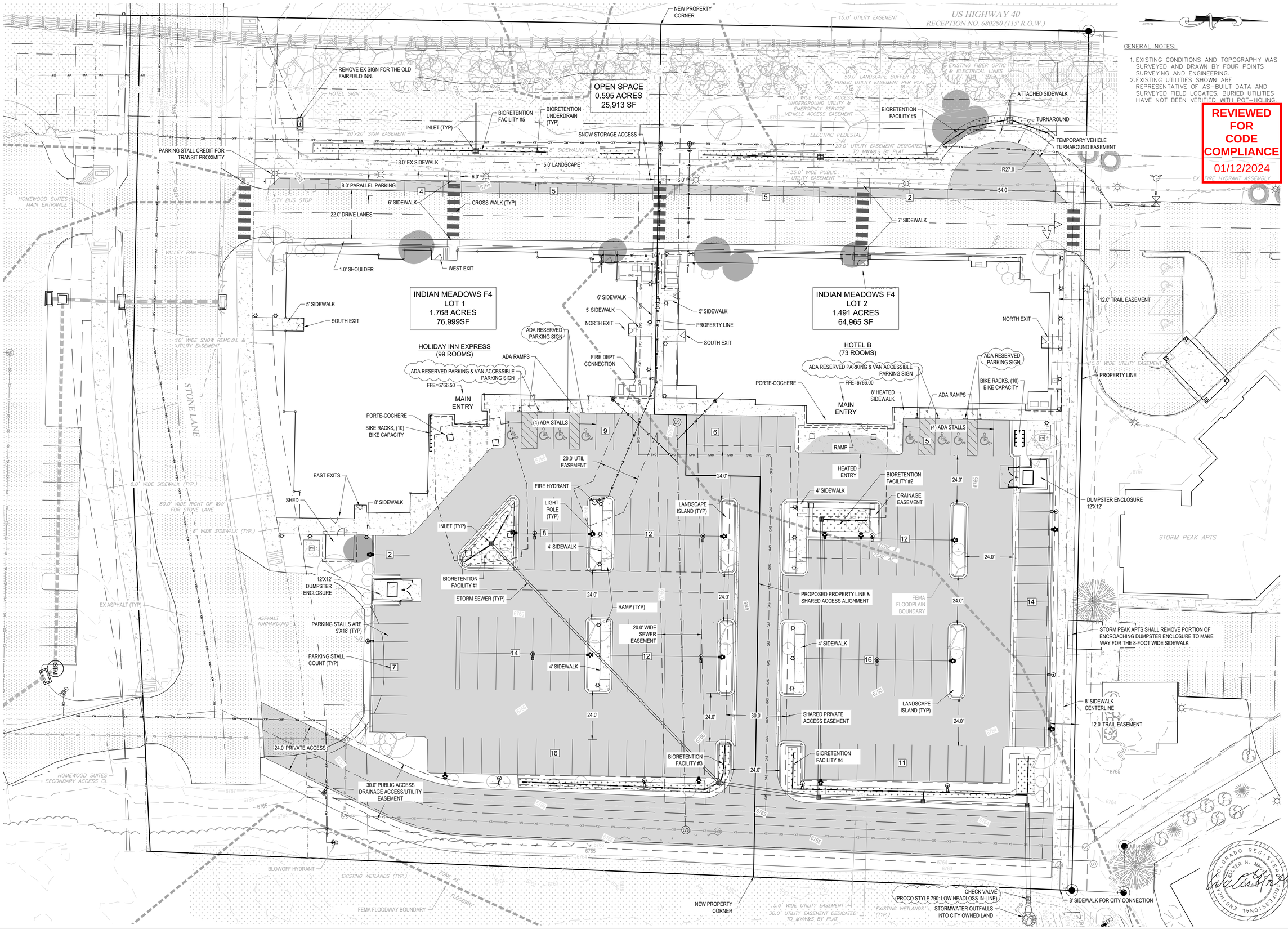
DRAWING:
EXISTING CONDITIONS PLAN

SHEET NO.
C2

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGILL

PLOT DATE: 11/17/2023 9:02 AM BY: RICHIE SOROKA CTB: PPSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\PPSE\CONSTRUCTION PLANS\1448-005 SITE PLAN.DWG



GENERAL NOTES:

1. EXISTING CONDITIONS AND TOPOGRAPHY WAS SURVEYED AND DRAWN BY FOUR POINTS SURVEYING AND ENGINEERING.
2. EXISTING UTILITIES SHOWN ARE REPRESENTATIVE OF AS-BUILT DATA AND SURVEYED FIELD LOCATES. BURIED UTILITIES HAVE NOT BEEN VERIFIED WITH POT-HOLING.

REVIEWED FOR CODE COMPLIANCE
01/12/2024

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No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'

CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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DRAWING: OVERALL SITE PLAN

SHEET NO.
C3

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGILL

PLOT DATE: 11/17/2023 9:03 AM BY: RICHIE SORONA CTB: PPSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\PPSE\CONSTRUCTION PLANS\1448-005 G&D PLAN.DWG

STORM DRAIN INLET SCHEDULE

STRUCTURE NAME	DETAILS	PIPES OUT	PIPES IN
A-1	INVERT STRUCTURE DIAMETER = 48" RIM = 6766.30 SUMP = 6756.30	18" CORRUGATED HDPE PIPE INV OUT = 6760.38	
A-2	INVERT STRUCTURE DIAMETER = 48" RIM = 6765.80 SUMP = 6755.80	18" CORRUGATED HDPE PIPE INV OUT = 6760.78	
A-3	INVERT STRUCTURE DIAMETER = 48" RIM = 6766.70 SUMP = 6756.70	18" CORRUGATED HDPE PIPE INV OUT = 6761.00 12" CORRUGATED HDPE PIPE INV OUT = 6761.20	
A-4	INVERT STRUCTURE DIAMETER = 48" RIM = 6767.00 SUMP = 6757.00	15" CORRUGATED HDPE PIPE INV OUT = 6761.65	4" PERFORATED HDPE PIPE INV IN = 6764.75 4" PERFORATED HDPE PIPE INV IN = 6761.65
A-5	INVERT STRUCTURE DIAMETER = 24" RIM = 6765.35 SUMP = 6760.35	12" CORRUGATED HDPE PIPE INV OUT = 6762.72	4" PERFORATED HDPE PIPE INV IN = 6762.82 4" PERFORATED HDPE PIPE INV IN = 6762.72
A-6	INVERT STRUCTURE DIAMETER = 24" RIM = 6764.61 SUMP = 6759.61	12" CORRUGATED HDPE PIPE INV OUT = 6762.30	4" PERFORATED HDPE PIPE INV IN = 6762.30
B-1	INVERT STRUCTURE DIAMETER = 24" RIM = 6763.70 SUMP = 6758.70	6" SOLID HDPE PIPE INV OUT = 6761.20	4" PERFORATED HDPE PIPE INV IN = 6761.40 4" PERFORATED HDPE PIPE INV IN = 6761.40
B-2	INVERT STRUCTURE DIAMETER = 24" RIM = 6763.70 SUMP = 6758.70	6" SOLID HDPE PIPE INV OUT = 6761.21	4" PERFORATED HDPE PIPE INV IN = 6761.41 4" PERFORATED HDPE PIPE INV IN = 6761.41
B-3	INVERT STRUCTURE DIAMETER = 24" RIM = 6761.41 SUMP = 6756.41	6" SOLID HDPE PIPE INV OUT = 6761.21	4" PERFORATED HDPE PIPE INV IN = 6761.41

HOLIDAY INN EXPRESS
FFE=6766.50

HOTEL B
FFE=6766.00

BIORETENTION FACILITY #5 (SEE SHEET C6)
24" NYLOPLAST INLET WITH DOME GRATE RIM=6763.69 INV IN=6761.40 INV IN=6761.40 IN OUT=6761.20 (SEE SHEET C6)
B-1
24" NYLOPLAST INLET WITH DOME GRATE RIM=6763.70 INV IN=6761.41 INV IN=6761.41 IN OUT=6761.21 (SEE SHEET C6)
B-2
BIORETENTION FACILITY #6 (SEE SHEET C6)
B-3
24" NYLOPLAST INLET WITH DOME GRATE RIM=6763.70 INV IN=6761.41 INV IN=6761.41 IN OUT=6761.21 (SEE SHEET C6)
RADIAL ATTACHED SIDEWALK AROUND TURNAROUND
TURNAROUND
R27.0
8.0'
HOTEL SIGN
50.0' LANDSCAPE BUFFER & PUBLIC UTILITY EASEMENT PER PLAT
8' SIDEWALK/TRAIL
OUTDOOR LIGHTPOLES (TYP.)
EX. FIRE HYDRANT ASSEMBLY
CITY BUS STOP
CROSS WALK (TYP)
4'-5' ASPHALT ADDITION FOR PARALLEL PARKING
5'-6' LANDSCAPE STRIP
5' SIDEWALK
6' SIDEWALK
5' SIDEWALK
SIDEWALK
10' WIDE SNOW REMOVAL & UTILITY EASEMENT
8.0' WIDE SIDEWALK (TYP.)
80.0' WIDE RIGHT OF WAY FOR STONE LANE
8' WIDE SIDEWALK (TYP.)
STONE LANE
EX ASPHALT (TYP)
STONE LANE CL
PROPERTY LINE
PROPOSED 8' TRAIL EXTENSION CL
SPILL CURB
STORM PEAK APTS
24" NYLOPLAST INLET WITH DOME GRATE RIM=6765.35 INV OUT=6762.72 (SEE SHEET C6)
24" NYLOPLAST INLET WITH DOME GRATE RIM=6764.61 INV OUT=6762.30 (SEE SHEET C6)
1' CURB CUT
BIORETENTION FACILITY #1 (SEE SHEET C6)
BIORETENTION FACILITY #2 (SEE SHEET C6)
A-5
A-6
6" SPILL CURB
2' VALLEY PANS
4' VALLEY PAN
FEMA FLOODPLAIN BOUNDARY
ZONE AE
H.I.X. STORM SEWER, SEE PROFILE (SOUTH), SHEET C5
HOTEL B STORM SEWER, SEE PROFILE (NORTH), SHEET C5
163.5' of 12" Corrugated HDPE Pipe @ 0.57%
137.64' of 12" Corrugated HDPE Pipe @ 0.79%
ACCESS ROAD ALIGNMENT, SEE PROFILE - SHEET C7
3.5' CURB CUT
3' CURB CUT
BIORETENTION FACILITY #3 (SEE SHEET C6)
BIORETENTION FACILITY #4 (SEE SHEET C6)
48" NYLOPLAST INLET WITH DOME GRATE RIM=6764.20 INV IN=6760.79 INV OUT=6760.69
48" NYLOPLAST INLET WITH DOME GRATE RIM=6763.66 INV IN=6760.38 INV OUT=6760.28
30.0' PUBLIC ACCESS DRAINAGE ACCESS/UTILITY EASEMENT
A-4
A-3
A-2
A-1
56.04' of 15" Corrugated HDPE Pipe @ 0.77%
48" NYLOPLAST INLET WITH DOME GRATE RIM=6764.46 INV IN=6761.79 INV OUT=6761.68 (SEE SHEET C6)
48" NYLOPLAST INLET WITH DOME GRATE RIM=6764.52 INV IN=6761.29 INV IN=6761.22 INV OUT=6761.12 (SEE SHEET C6)
51.75' of 18" Corrugated HDPE Pipe @ 0.64%
51.73' of 18" Corrugated HDPE Pipe @ 0.60%
48.34' of 24" Corrugated HDPE Pipe @ 0.60%
CHECK VALVE (PROCO STYLE 790: LOW HEADLOSS IN-LINE)
STORMWATER OUTFALL
PROPERTY LINE
FEMA FLOODWAY BOUNDARY
FLOODWAY
5.0' WIDE UTILITY EASEMENT
30.0' UTILITY EASEMENT DEDICATED TO MWW&S BY PLAT
EXISTING WETLANDS (TYP.)
CITY LAND PARCEL A INDIAN MEADOWS SUBDIVISION
BASE FLOOD ELEVATION CROSS SECTIONS BY WOHNRADE ENGINEERING (TYP.)
INDIAN MEADOWS TOWNHOMES
BFE=6763.46
BFE=6763.12
BFE=6762.75
BFE=6762.67

REVIEWED FOR CODE COMPLIANCE
01/12/2024

PROJECT TOTAL EARTHWORK QUANTITIES:

AREA OF DISTURBANCE:	121,150	SQ. FT.
TOPSOIL STRIPPING:	2,250	CU. YDS.
TOTAL CUT:	75	CU. YDS.
TOTAL FILL:	8,075	CU. YDS.
NET (FILL):	8,000	CU. YDS.

NOTES:
1. TOPSOIL STRIPPING VOLUME ASSUMES AN AVERAGE TOPSOIL DEPTH OF 0.5 FEET
2. THE TOTAL CUT VOLUME INCLUDES TOPSOIL STRIPPING.
3. A FILL FACTOR OF 1.10 WAS USED FOR CUT–FILL VOLUME CALCULATIONS.
4. FILL VOLUME INCLUDES NATIVE MATERIAL AND ALL IMPORT MATERIALS. (I.E. GRAVEL, ASPHALT, CONCRETE, ETC.)

FOUR POINTS SURVEYING ENGINEERING
410 S. Lincoln Ave, Unit 15
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
www.fourpointsse.com

No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS
INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'
CONTOUR INTERVAL = 1 FT

DATE:	11-17-2023
JOB #:	1448-005
DRAWN BY:	AP/DSC/AAC
DESIGN BY:	AP/DSC/AAC/WNM
REVIEW BY:	FPSE

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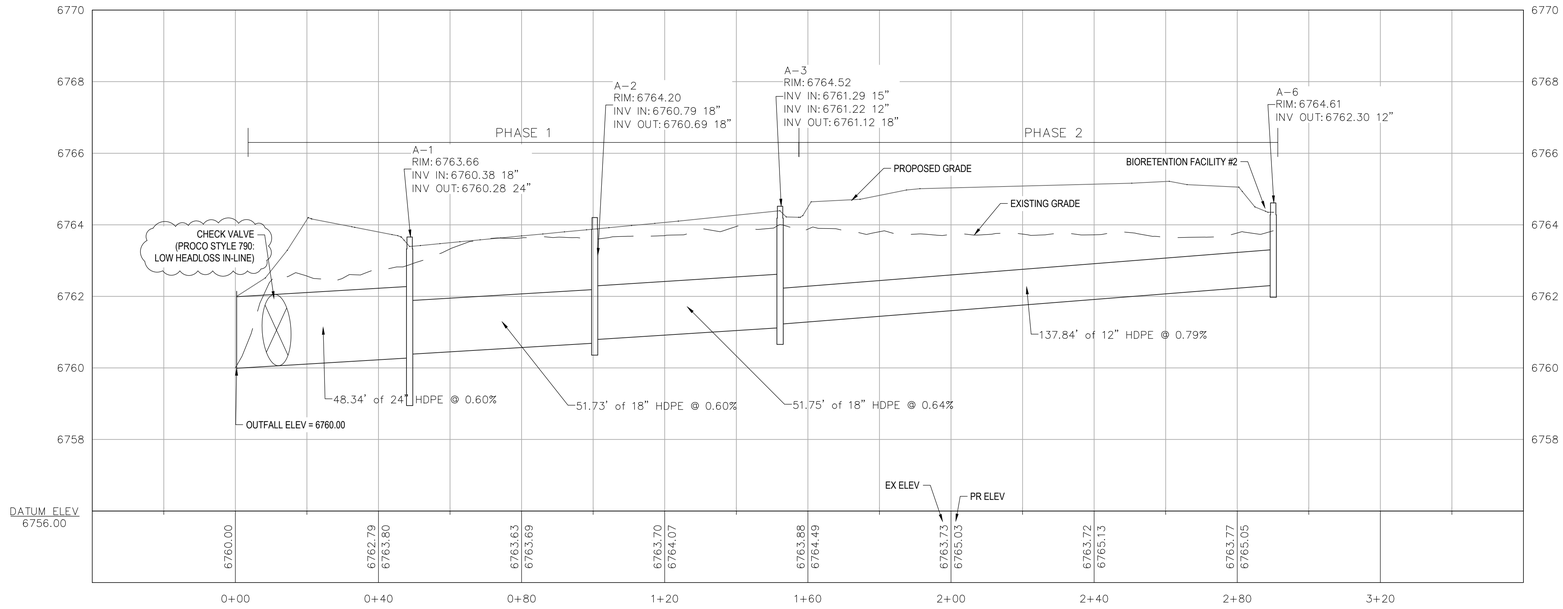
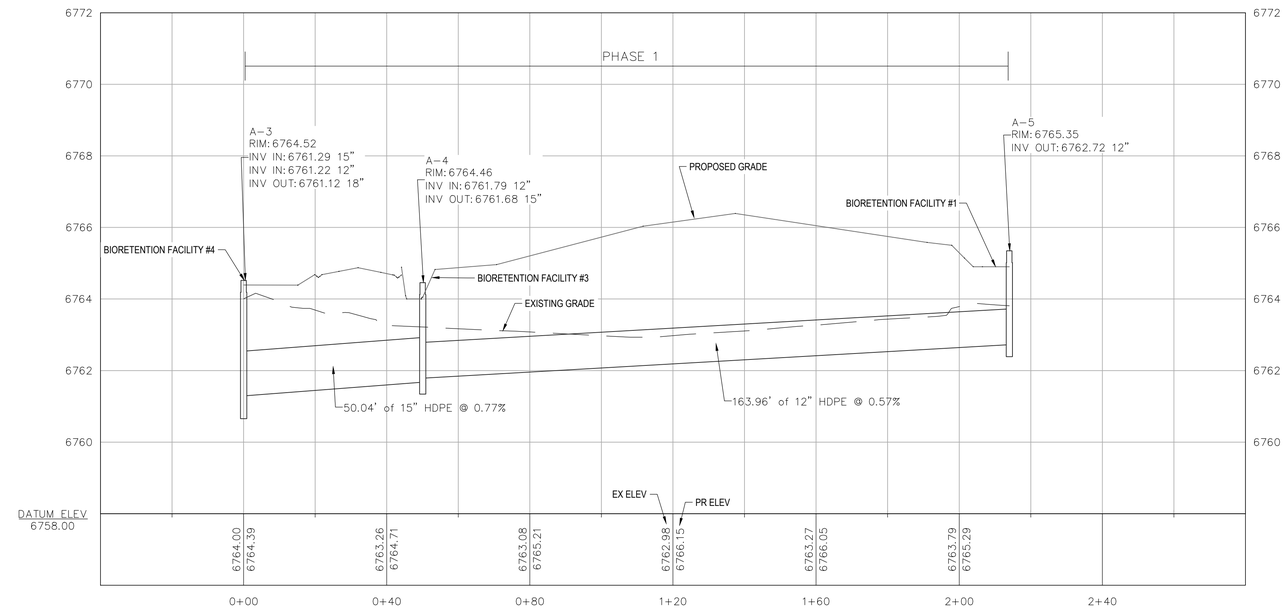
DRAWING: **GRADING & DRAINAGE PLAN**

SHEET NO.
C4

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MACKEY



HOTEL B (NORTH) STORM SEWER PROFILE – INLET A-6 TO OUTFALL
HORIZ/VERT SCALE: 1"=20'/2'



H.I.X (SOUTH) STORM SEWER PROFILE – INLET A-3 TO INLET A-5
HORIZ/VERT SCALE: 1"=20'/2'

REVIEWED FOR CODE COMPLIANCE
01/12/2024

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No.	DATE	REVISIONS	INT
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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS
INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE
IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

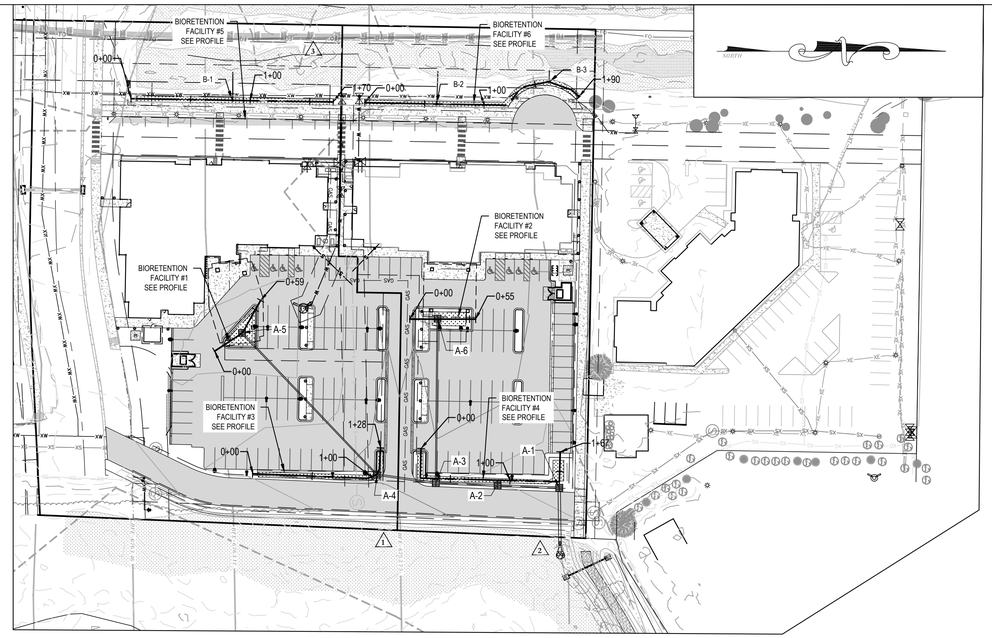
DRAWING: STORM SEWER PROFILES

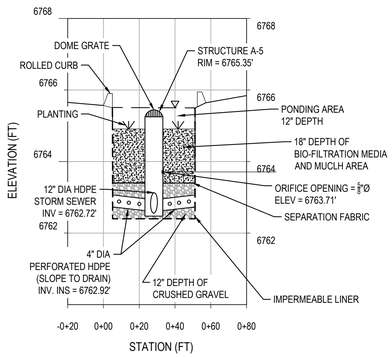
SHEET NO.
C5

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGNUSSEN

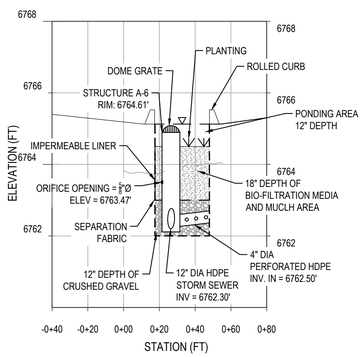
PLOT DATE: 11/17/2023 9:11 AM BY: RICHIE SOROKA CTB: FPSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 G&D PLAN.DWG

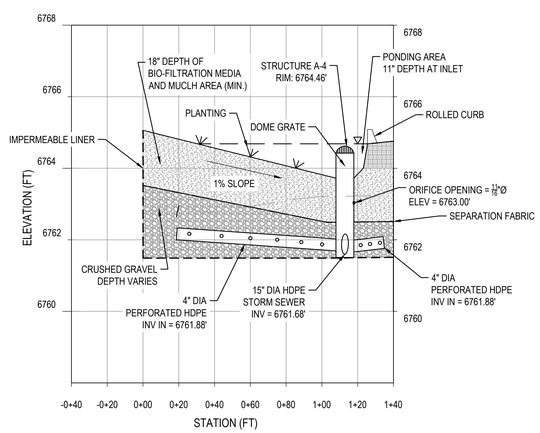




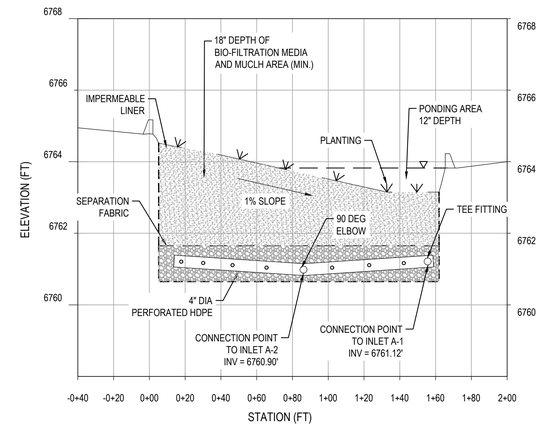
BIORETENTION FACILITY #1



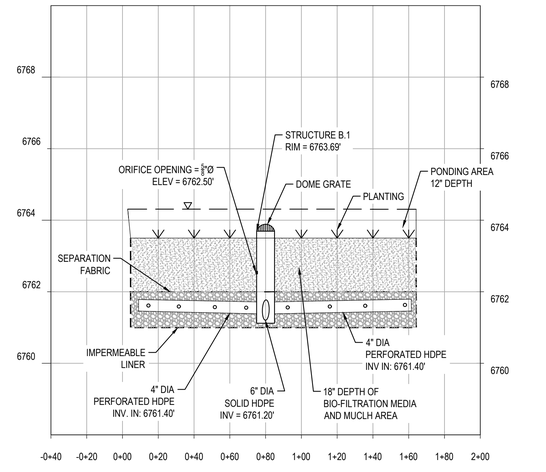
BIORETENTION FACILITY #2



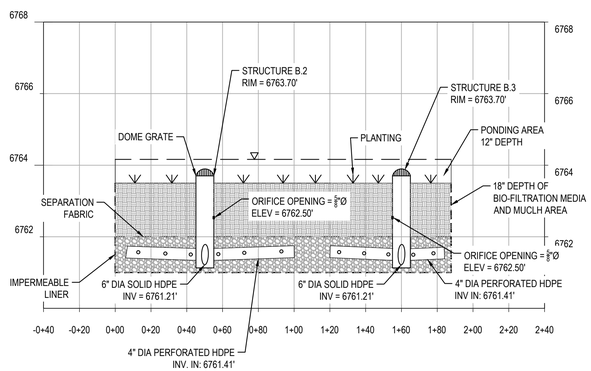
BIORETENTION FACILITY #3



BIORETENTION FACILITY #4



BIORETENTION FACILITY #5



BIORETENTION FACILITY #6

PROFILE SCALES:
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 2'

REVIEWED FOR CODE COMPLIANCE
01/12/2024

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No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS
INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 60' 120'
SCALE: 1" = 60'
CONTOUR INTERVAL = 1 FT

DATE:	11-17-2023
JOB #:	1448-005
DRAWN BY:	AP/DSC/AAC
DESIGN BY:	AP/DSC/AAC/WNM
REVIEW BY:	FPSE

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24"X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING: **BIORETENTION PLAN & PROFILE**

SHEET NO.
C6

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 BIORETENTION P&P.DWG
PLOT DATE: 10/12/2023 10:21 AM BY: RICHIE SOROKA CTB: FPSE-BW.CTB

REVIEWED FOR CODE COMPLIANCE
01/12/2024

BIORETENTION NOTES:

TERMINOLOGY:

THE TERM BIORETENTION REFERS TO THE TREATMENT PROCESS ALTHOUGH IT IS ALSO FREQUENTLY USED TO DESCRIBE A BMP THAT PROVIDES BIOLOGICAL UPTAKE AND FILTRATION OF THE POLLUTANTS FOUND IN STORMWATER RUNOFF.

DESCRIPTION:

BIORETENTION IS A BEST MANAGEMENT PRACTICE (BMP) THAT UTILIZES BIORETENTION AS AN ENGINEERED, DEPRESSED LANDSCAPE AREA DESIGNED TO CAPTURE AND FILTER OR INFILTRATE THE WATER QUALITY CAPTURE VOLUME (WQCV). BMPs THAT UTILIZE BIORETENTION ARE FREQUENTLY REFERRED TO AS RAIN GARDENS OR POROUS LANDSCAPE DETENTION AREAS (PLDs).

THE DESIGN OF A BIORETENTION OR RAIN GARDEN SYSTEM MAY PROVIDE DETENTION FOR EVENTS EXCEEDING THAT OF THE WQCV. THERE ARE GENERALLY TWO WAYS TO ACHIEVE THIS. THE DESIGN CAN PROVIDE THE FLOOD CONTROL VOLUME ABOVE THE WQCV OR THE DESIGN CAN PROVIDE AND SLOWLY RELEASE THE FLOOD CONTROL VOLUME IN AN AREA DOWNSTREAM OF ONE OR MORE BIORETENTION SYSTEMS. SEE THE STORAGE CHAPTER IN VOLUME 2 OF THE URBAN STORM DRAINAGE CRITERIA MANUAL (USDCM) FOR ADDITIONAL INFORMATION.

SITE SELECTION:

THIS BMP ALLOWS WQCV TREATMENT WITHIN ONE OR MORE AREAS DESIGNATED FOR LANDSCAPE. IT IS AN EXCELLENT ALTERNATIVE TO EXTENDED DETENTION BASINS FOR SMALL SITES WITH LIMITED AVAILABLE AREA. A TYPICAL BIORETENTION SYSTEM SERVES A TRIBUTARY OR SUBBASIN AREA OF ONE IMPERVIOUS ACRE OR LESS, ALTHOUGH THEY CAN BE DESIGNED FOR LARGER TRIBUTARY AREAS. MULTIPLE INSTALLATIONS CAN BE USED WITHIN LARGER SITES. BIOFILTRATION SHOULD NOT BE USED WHEN A BASEFLOW IS ANTICIPATED OR WHEN GROUNDWATER HAS BEEN OBSERVED IN CLOSE PROXIMITY TO EXISTING GRADE ELEVATIONS. THE SYSTEMS ARE TYPICALLY SMALL AND MAY BE INSTALLED IN LOCATIONS SUCH AS:

- PARKING LOT ISLANDS
- STREET MEDIANS
- LANDSCAPE AREAS BETWEEN THE ROAD AND A DETACHED SIDEWALK
- PLANTER BOXES THAT COLLECT ROOF DRAINS

BIORETENTION REQUIRES A STABLE WATERSHED. DURING PHASED CONSTRUCTION, PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED TO ENSURE LADEN SEDIMENT DOES NOT DIRECTLY DISCHARGE INTO ADJACENT WATERBODIES.

THE SURFACE OF A RAIN GARDEN SHOULD BE PRIMARILY FLAT. HOWEVER, TERRACED APPLICATION OF THESE FACILITIES HAVE BEEN SUCCESSFUL IN THE PAST. WHEN BIORETENTION SYSTEMS ARE LOCATED ADJACENT TO BUILDINGS OR PAVEMENT AREAS, PROTECTIVE MEASURES SHOULD BE IMPLEMENTED TO AVOID ADVERSE IMPACTS TO THESE STRUCTURES.

MAINTENANCE:

SEE THE OPERATIONS AND MAINTENANCE PLAN INCLUDED AS PART OF THE DRAINAGE REPORT.

ON-SITE SOIL CONDITIONS:

NORTHWEST COLORADO CONSULTANTS (NWCC) PRODUCED A GEOTECHNICAL STUDY FOR THE PROJECT ON MARCH 31, 2022. THE GEOTECHNICAL STUDY INCLUDED THE LOGGING OF FOUR TEST HOLES AND SIX TEST PITS. SOILS WERE OBSERVED ON-SITE AND LATER SAMPLED AND LAB TESTED FOR ADDITIONAL EVALUATION.

BASED ON THE ANTICIPATED GEOLOGIC SITE CONDITIONS, NWCC RECOMMENDED THAT A **SITE CLASS C** DESIGNATION SHOULD BE USED IN STRUCTURAL DESIGN CALCULATIONS IN ACCORDANCE WITH TABLE 20.3-1 IN CHAPTER 20 OF ASCE 7.

THEREFORE, FOUR POINTS SURVEYING AND ENGINEERING OPTED TO ELIMINATE THE POTENTIAL FOR INFILTRATING BMPs AS A RESULT OF THE GEOTECHNICAL STUDY FINDINGS. ALL OF THE SEVEN PROPOSED BIORETENTION SYSTEMS WILL BE NON-INFILTRATING AND WILL RELY ON UNDER-DRAIN SYSTEMS TO CAPTURE AND CONVEY STORMWATER TO THE INTENDED DESIGN OUTFALLS AND OFF-SITE DISCHARGE LOCATIONS.

NON-INFILTRATING BIORETENTION SYSTEMS:

NON-INFILTRATING BIORETENTION SYSTEMS INCLUDE AN UNDER-DRAIN AND AN IMPERVIOUS LINER THAT PREVENTS INFILTRATION OF STORMWATER INTO THE SUBGRADE SOILS. NON-INFILTRATING BIORETENTION SYSTEMS ARE APPROPRIATE FOR THIS PROJECT AS THE FACILITY IS LOCATED OVER POTENTIALLY EXPANSIVE SOILS OR BEDROCK THAT COULD SELL DUE TO INFILTRATION AND POTENTIALLY DAMAGE ADJACENT STRUCTURES (I.E. BUILDING FOUNDATIONS OR PAVEMENTS).

BASIN STORAGE VOLUME:

STORAGE VOLUMES ARE BASED ON A 12-HOUR DRAIN TIME. SEE THE ATTACHED BMP SIZING WORKSHEETS ATTACHED TO THIS DRAINAGE REPORT. DESIGN VOLUMES ARE CALCULATED FOLLOWING EQUATION B-1 OF THE USDCM MANUAL, VOLUME 3.

$V = (\frac{WQCV}{12}) * A$ (EQ. B-1)

WHERE:
V = DESIGN VOLUME (FT³)
A = AREA OF WATERSHED TRIBUTARY TO THE BIORETENTION SYSTEM (FT²)

BASIN GEOMETRY:

THE MAXIMUM PONDING DEPTH FOR THE PROJECT IS 12 INCHES. NYLOPLAST DOME GRATES WILL BE INSTALLED TO MANAGE OVERFLOW WITHIN THE PONDED AREA OF EACH BIORETENTION FACILITY. THIS WILL REDUCE THE POTENTIAL FOR EXCESS STORMWATER FROM OVERTOPPING THE CURBS AND BACKFLOWING INTO THE PROPOSED PARKING AREA. VERTICAL WALL GEOMETRIES WILL BE UTILIZED. SEE FIGURE B-3 GEOMEMBRANE LINER/CONCRETE CONNECTION DETAIL FOR ADDITIONAL INFORMATION. CURB CUTS ARE PROPOSED TO ALLOW THE PARKING LOT TO SUCCESSFULLY DRAIN INTO EACH OF THE INTENDED BMP SYSTEMS. MINIMUM FILTER AREAS WERE CALCULATED USING THE FOLLOWING EQUATION:

$A_F = 0.02AI$ (EQ. B-2)

WHERE:

AF = MINIMUM (FLAT) FILTER AREA (FT²)
A = AREA TRIBUTARY TO THE BIORETENTION SYSTEM (FT²)
I = IMPERVIOUSNESS OF TRIBUTARY AREA TO THE BIORETENTION SYSTEM (PERCENT EXPRESSED AS A DECIMAL).

GROWING MEDIUM:

PROVIDE A MINIMUM OF 18 INCHES OF GROWING MEDIUM TO ENABLE ESTABLISHMENT OF THE ROOTS OF THE VEGETATION. SEE THE SPECIFICATION TABLE BELOW FOR SPECIFICATIONS OF THE GROWING MEDIUM.

UNDER-DRAIN SYSTEM:

WHEN USING AN UNDER-DRAIN SYSTEM, PROVIDE A CONTROL ORIFICE TO DRAIN THE DESIGN VOLUME IN 12 HOURS OR MORE. USE A MINIMUM ORIFICE SIZE OF [illegible] INCHES TO AVOID CLOGGING. THIS WILL PROVIDE DETENTION AND SLOW RELEASE OF THE WQCV, PROVIDING WATER QUALITY BENEFITS AND REDUCING IMPACTS TO DOWNSTREAM CHANNELS. SPACE UNDER-DRAIN PIPES A MAXIMUM OF 20 FEET ON CENTER. PROVIDE CLEANOUTS TO ENABLE MAINTENANCE OF THE UNDER-DRAIN SYSTEM. EACH NYLOPLAST INLET STRUCTURE WILL INCLUDE AN ORIFICE HOLE TO RELEASE EACH OF THE BIORETENTION SYSTEMS WITHIN THE 12 HOUR PERIOD. CALCULATIONS FOR THE ORIFICE SIZE HAVE BEEN PROVIDED IN THE ATTACHMENTS OF THE DRAINAGE REPORT.

THE UNDER-DRAIN SYSTEM SHOULD BE PLACED WITHIN A 6-INCH THICK SECTION OF CDOT CLASS B OR CLASS C FILTER MATERIAL MEETING THE GRADATION IN THE TABLE BELOW. USE SLOTTED (PERFORATED) PIPE THAT MEETS THE SLOT DIMENSIONS LISTED IN THE TABLE ON THE SPECIFICATIONS SHEET.

IMPERMEABLE GEOMEMBRANE LINER AND GEOTEXTILE SEPARATOR FABRIC:

FOR NON-INFILTRATING SYSTEMS, INSTALL A 30 MIL (MIN) PVC GEOMEMBRANE LINER, PER THE TABLE ON THE SPECIFICATIONS SHEET, ON THE BOTTOM AND SIDES OF THE BASIN, EXTENDING UP AT LEAST TO THE TOP OF THE UNDER-DRAIN LAYER. PROVIDE AT LEAST 9 INCHES (12 INCHES IF POSSIBLE) OF COVER OVER THE MEMBRANE WHERE IT IS TO BE ATTACHED TO THE WALL TO PROTECT THE MEMBRANE FROM UV DETERIORATION. THE GEOMEMBRANE SHOULD BE FIELD SEAMED USING A DUAL TRACK WELDER, WHICH ALLOWS FOR NON-DESTRUCTIVE TESTING OF ALMOST ALL FIELD SEAMS. A SMALL AMOUNT OF SINGLE TRACK IS ALLOWED IN LIMITED AREAS TO SEAM AROUND PIPE PERFORATIONS, TO PATCH SEAMS REMOVED FOR DESTRUCTIVE SEAM TESTING, AND FOR LIMITED REPAIRS. THE LINER SHOULD BE INSTALLED WITH SLACK TO PREVENT TEARING DUE TO BACKFILL, COMPACTION AND SETTLING.

PLACE CDOT CLASS B GEOTEXTILE SEPARATOR FABRIC ABOVE THE GEOMEMBRANE TO PROTECT IT FROM BEING PUNCTURED DURING THE PLACEMENT OF THE FILTER MATERIAL ABOVE THE LINER. IF THE SUBGRADE CONTAINS ANGULAR ROCKS OR OTHER MATERIAL THAT COULD PUNCTURE THE GEOMEMBRANE, SMOOTH-ROLL THE SURFACE TO CREATE A SUITABLE SURFACE. IF SMOOTH-ROLLING THE SURFACE DOES NOT PROVIDE A SUITABLE SURFACE, ALSO PLACE THE SEPARATOR FABRIC BETWEEN THE GEOMEMBRANE AND THE UNDERLYING SUBGRADE. THIS SHOULD ONLY BE DONE WHEN NECESSARY BECAUSE FABRIC PLACED UNDER THE GEOMEMBRANE CAN INCREASE SEEPAGE LOSSES THROUGH PINHOLES OR OTHER GEOMEMBRANE DEFECTS. CONNECT THE GEOMEMBRANE TO PERIMETER CONCRETE WALLS AROUND THE BASIN PERIMETER, CREATING A WATERTIGHT SEAL BETWEEN THE GEOMEMBRANE AND THE WALLS USING A CONTINUOUS BATTEN BAR AND ANCHOR CONNECTION (SEE FIGURE B-3 OF USDCM). WHERE THE NEED FOR THE IMPERMEABLE MEMBRANE IS NOT AS CRITICAL, THE MEMBRANE CAN BE ATTACHED WITH A NITRILE-BASED VINYL ADHESIVE. USE WATERTIGHT PVC BOOTS FOR UNDERDRAIN PIPE PENETRATIONS THROUGH THE LINER (SEE FIGURE B-2) OR THE TECHNIQUE SHOWN IN PHOTO B-3 OF THE USDCM.

INLET AND OUTLET CONTROL:

INLET CONTROL WILL BE MAINTAINED BY CURB CUT OPENINGS THAT ARE ORIENTATED IN THE DIRECTION OF THE PARKING LOT FLOW.

OULET CONTROL WILL BE MAINTAINED BY THE INSTALLATION OF THE NYLOPLAST GRATES. THE NYLOPLAST GRATES WILL HELP CAPTURE EXCESS VOLUMES WITHIN THE BIORTENTION SYSTEMS (DURING LARGER STORM EVENTS) AND REDUCE THE POTENTIAL FOR BACKFLOW INTO THE PARKING LOT AREA.

VEGETATION:

THE UDFCD RECOMMENDS THAT THE FILTER AREA SHALL BE VEGETATED WITH DROUGHT TOLERANT SPECIES THAT THRIVE IN SANDY SOILS. SEE THE SPECIFICATION SHEET FOR ADDITIONAL INFORMATION.

MIX SEED WELL AND BROADCAST, FOLLOWED BY HAND RAKING TO COVER SEED AND THEN MULCH. HYDRO-MULCHING CAN BE EFFECTIVE FOR THE LARGER BIORETENTION SYSTEMS. DO NOT PLACE SEED WHEN STANDING WATER OR SNOW IS PRESENT OR IF THE GROUND IS FROZEN. WEED CONTROL IS CRITICAL IN THE FIRST TWO TO THREE YEARS, ESPECIALLY WHEN STARTING WITH SEED.

WHEN USING SOD, SPECIFY SAND-GROWN SOD. DO NOT USE CONVENTIONAL SOD. CONVENTIONAL SOD IS GROWN IN CLAY SOIL THAT WILL SEAL THE FILTER AREA, GREATLY REDUCING THE OVERALL FUNCTION OF THE BMP.

WHEN USING AN IMPERMEABLE LINER, SELECT PLANTS WITH DIFFUSE (OR FIBROUS) ROOT SYSTEMS, NOT TAPROOTS. TAPROOTS CAN DAMAGE THE LINER AND/OR UNDER-DRAIN PIPE. AVOID TREES AND LARGE SHRUBS THAT MAY INTERFERE WITH RESTORATIVE MAINTENANCE. PLANT THESE OUTSIDE OF THE AREA OF GROWING MEDIUM. USE A CUTOFF WALL TO ENSURE THAT ROOTS DO NOT GROW INTO THE UNDER-DRAIN OR PLACES TRESS AND SHRUBS A CONSERVATIVE DISTANCE FROM THE UNDER-DRAIN.

IRRIGATION:

ON-SITE IRRIGATION IN THE FORM OF SPRINKLER SYSTEMS ARE NOT PROPOSED FOR THIS PROJECT. PLANTINGS SHALL BE WATERED AT AN APPROPRIATED RATE TO MAINTAIN VEGETATIVE GROWTH WITHIN THE BMP SYSTEMS. ADJUST WATERING SCHEDULES DURING THE GROWING SEASON (SPRING AND SUMMER MONTHS) TO PROVIDE THE MINIMUM WATER NECESSARY TO MAINTAIN PLANT HEALTH AND TO MAINTAIN THE AVAILABLE PORE SPACE FOR INFILTRATION.

AESTHETIC DESIGN:

IN ADDITION TO EFFECTIVE STORMWATER QUALITY TREATMENT, BIOFILTRATION CAN BE ATTRACTIVELY INCORPORATED INTO A SITE WITHIN ONE OR SEVERAL LANDSCAPE AREAS. AESTHETICALLY DESIGNED BIOFILTRATION WILL TYPICALLY EITHER REFLECT THE CHARACTER OF THEIR SURROUNDING OR BECOME DISTINCT FEATURES WITHIN THEIR SURROUNDINGS. SEE THE USDCM FOR ADDITIONAL CRITERIA RELATING TO AESTHETICS.

CONSTRUCTION CONSIDERATIONS:

PROPER CONSTRUCTION OF BIOFILTRATION SYSTEMS INVOLVES CAREFUL ATTENTION TO MATERIAL SPECIFICATION, FINISHED GRADES, AND CONSTRUCTION DETAILS. IMPORTANT FACTORS TO IMPLEMENT INCLUDE:

- PROTECT AREAS FROM EXCESSIVE SEDIMENT LOADING DURING CONSTRUCTION. THIS IS THE MOST COMMON CAUSE OF CLOGGING OF BIOFILTRATION. THE PORTION OF THE SITE DRAINING TO THE RAIN GARDEN MUST BE STABILIZED BEFORE ALLOWING FLOW INTO THE RAIN GARDEN. THIS INCLUDES COMPLETION OF PAVING OPERATIONS.
- AVOID OVER COMPACTION OF AREA TO PRESERVE INFILTRATION RATES (NOT APPLICABLE TO NON-INFILTRATING SYSTEMS).
- PROVIDE CONSTRUCTION OBSERVATION TO ENSURE COMPLIANCE WITH DESIGN SPECIFICATIONS. IMPROPER INSTALLATION, PARTICULARLY RELATED TO FACILITY DIMENSIONS AND ELEVATIONS AND UNDER-DRAIN ELEVATIONS, IS A COMMON PROBLEM WITH BIORETENTION.
- WHEN USING AN IMPERMEABLE LINER, ENSURE ENOUGH SLACK IN THE LINER TO ALLOW FOR BACKFILL, COMPACTION, AND SETTLING WITHOUT TEARING THE LINER.
- PROVIDE NECESSARY QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) WHEN CONSTRUCTION AN IMPERMEABLE GEOMEMBRANE LINER SYSTEM, INCLUDING BUT NOT LIMITED TO FABRICATION TESTING, DESTRUCTIVE AND NON-DESTRUCTIVE TESTING OF FIELD SEAMS, OBSERVATION OF GEOMEMBRANE MATERIALS FOR TEARS OR OTHER DEFECTS, AND AIR LACE TESTING FOR LEAKS IN ALL FIELD SEAMS AND PENETRATIONS. QA/QC SHOULD BE OVERSEEN BY THE OWNERS REPRESENTATIVE AND REPORTED TO A PROFESSIONAL ENGINEER. FIELD REPORTING AND INSPECTION LOGS ARE REQUIRED DURING THE LINER INSTALLATION PROCESS. ALL DOCUMENTS SHALL BE TRANSMITTED TO THE PROFESSIONAL ENGINEER.
- PROVIDE ADEQUATE CONSTRUCTION STAKING TO ENSURE THAT THE SITE PROPERLY DRAINS INTO THE BMP SYSTEM, PARTICULARLY WITH RESPECT TO SURFACE DRAINAGE AWAY FROM ADJACENT BUILDINGS.

MISCELLANEOUS:

ALL NOTES AND SPECIFICATIONS ARE REFERENCED TO THE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT, URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3, LATEST ADDITION.

TABLE 1: MATERIAL SPECIFICATION FOR BIORETENTION SYSTEMS

MATERIAL		SPECIFICATION			SUBMITTALS	TESTING	NOTES
BIORETENTION GROWING MEDIA	BIORETENTION SOIL	PARTICLE SIZE DISTRIBUTION 80-90% SAND (0.05 - 2.0 mm DIAMETER) 3-17% SILT (0.002 - 0.5 mm DIAMETER) 3-17% CLAY (<0.002 DIAMETER) CHEMICAL ATTRIBUTE AND NUTRIENT ANALYSIS pH = 6.8 - 7.5 ORGANIC MATTER <15% NITROGEN < 15 PPM PHOSPHOROUS < 15 PPM SALINITY < 6 MMHOS/CM			PARTICLE SIZE DISTRIBUTION AND NUTRIENT ANALYSIS REQUIRED		PERCENTAGES ARE IN WEIGHT.
	BIORETENTION ORGANICS	3 TO 5% SHREDDED MULCH (BY WEIGHT OF GROWING MEDIA)					BIORETENTION SOIL REQUIRED. AGED SIX MONTHS (MIN.).
LANDSCAPE MULCH		SHREDDED HARDWOOD					AGED SIX MONTHS (MIN.). NO WEED FABRIC ALLOWED
UNDERDRAIN AGGREGATE	CDOT FILTER MATERIAL (CLASS B OR C)		MASS PERCENT PASSING SQUARE MESH SIEVE		PARTICLE SIZE DISTRIBUTION REQUIRED.		
		SIEVE SIZE	CLASS B	CLASS C			
		37.5 mm (1.5")	100				
		19.0 mm (0.75")		100			
		4.75 mm (No. 4)	20-60	60-100			
		1.18 um (No. 16)	10-30				
		300 um (No. 50)	0-10	10-30			
		150 um (No. 100)		0-10			
		75 um (No. 200)	0-3	0-3			
UNDERDRAIN PIPE		PIPE DIAMETER AND TYPE	MAXIMUM SLOT WIDTH (INCHES)	MINIMUM OPEN AREA (PER FOOT)	REQUIRED	PIPE MUST CONFORM TO REQUIREMENTS OF ASTM DESIGNATION F949. THERE SHALL BE NO EVIDENCE OF SPLITTING, CRACKING, OR BREAKING WHEN THE PIPE IS TESTED PER ASTM TEST METHOD D2412 IN ACCORDANCE WITH F949 SECTION 7.5 AND ASTM F794 SECTION 8.5.	CONTECH A-2000 SLOTTED PIPE (OR APPROVED EQUAL)
		4-INCH SLOTTED PVC/HDPE	0.032	1.90 IN²			
		6-INCH SLOTTED PVC/HDPE	0.0320	1.98 IN²			
IMPERMEABLE LINER			THICKNESS 0.76 mm (30 mil)	TEST METHOD	REQUIRED	THERMAL WELDING REQUIRED FOR FULLY LINED FACILITIES (NOT A CURTAIN). LEAK TESTING IN THE FIELD REQUIRED.	
		THICKNESS, % TOLERANCE	±5	ASTM D 1593			
		TENSILE STRENGTH, kN/m (lb/in)	12.25 (70)	ASTM D8 82, METHOD B			
		MODULUS AT 100% ELONGATION, kN/m (lb/in)	5.25 (30)	ASTM D8 82 METHOD B			
		ULTIMATE ELONGATION, %	350	ASTM D8 82, METHOD B			
		TEAR RESISTANCE, N (lbs)	38 (8.5)	ASTM D 1004			
		LOW TEMPERATURE IMPACT, °C (°F)	-29 (-20)	ASTM D 1790			
		VOLATILE LOSS, % MAX.	0.7	ASTM D8 82, METHOD A			
		PINHOLES, NO. PER 8 m² (NO. PER 10 YD²)	1 (MAX)	N/A			
		BONDED SEAM STRENGTH, % OF TENSILE	80	N/A			

TABLE 2: NATIVE SEED MIX FOR BIO-RETENTION SYSTEMS

COMMON NAME	SCIENTIFIC NAME	VARIETY	PLS[2] (LBS/ACRE)	OUNCES PER ACRE
SAND BLUESTEM	ANDROPOGON HALLII	GARDEN	3.5	
SIDEOATS GRAMA	BOUTELOUA CURIPENDULA	BUTTE	3	
PRAIRIE SANDREED	CALAMOVILFA LONGIFOLIA	GOSHEN	3	
INDIAN RICEGRASS	ORYZOPSIS HYMENOIDES	PALOMA	3	
SWITCHGRASS	PANICUM VIRGATUM	BLACKWELL	4	
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	ARIBA	3	
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	PATURA	3	
ALKALI SACATON	SPOROBOLUS AIROIDES		3	
SAND DROPSEED	SPOROBOLUS CRYPTANDRUS		3	
PASTURE SAGE[1]	ARTEMISIA FRIGIDA			2
BLUE ASTER	ASTER LAEVIS			4
BLANKET FLOWER	GAILLARDIA ARISTATA			8
PRAIRIE CONEFLOWER	RATIBIDA COLUMNIFERA			4
PURPLE PRAIRIECLOVER	DALEA (PETALOSTEMUM) PURPUREA			4
SUB-TOTALS			27.5	22
TOTAL LBS PER ACRE			**28.9**	

TABLE 3: PHYSICAL REQUIREMENTS FOR SEPARATOR FABRIC

PROPERTY	CLASS B		TEST METHOD
	ELONGATION <50%	ELONGATION > 50%	
GRAB STRENGTH, N (lbs)	800 (180)	510 (115)	ASTM D 4632
PUNCTURE RESISTANCE, N (lbs)	310 (70)	180 (40)	ASTM D 4833
TRAPEZOIDAL TEAR STRENGTH, N (lbs)	310 (70)	180 (40)	ASTM D 4533
APPARENT OPENING SIZE, mm (US SIEVE SIZE)	AOS < 0.3 mm (US SIEVE SIZE NO. 50)		ASTM D 4751
PERMITTIVITY, SEC^{-1}	0.02 DEFAULT VALUE, MUST ALSO BE GREATER THAN THAT OF SOIL		ASTM D 4491
PERMEABILITY, CM/SEC	K FABRIC > K SOIL FOR ALL CLASSES		ASTM D 4491
ULTRAVIOLET DEGRADATION AT 500 HOURS	50% STRENGTH RETAINED FOR ALL CLASSES		ASTM D 4355

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No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS
INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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DRAWING: BIORETENTION NOTES AND SPECIFICATIONS

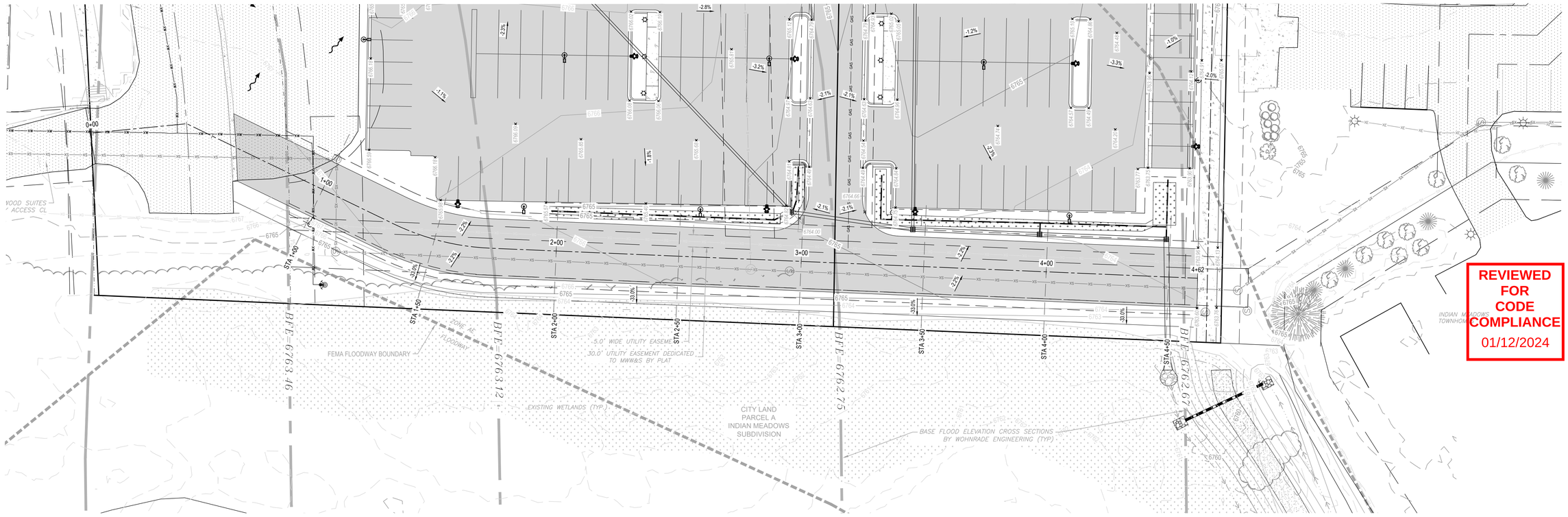
SHEET NO.
C7

COLORADO REGISTERED PROFESSIONAL ENGINEER WALTER N. MAGILL

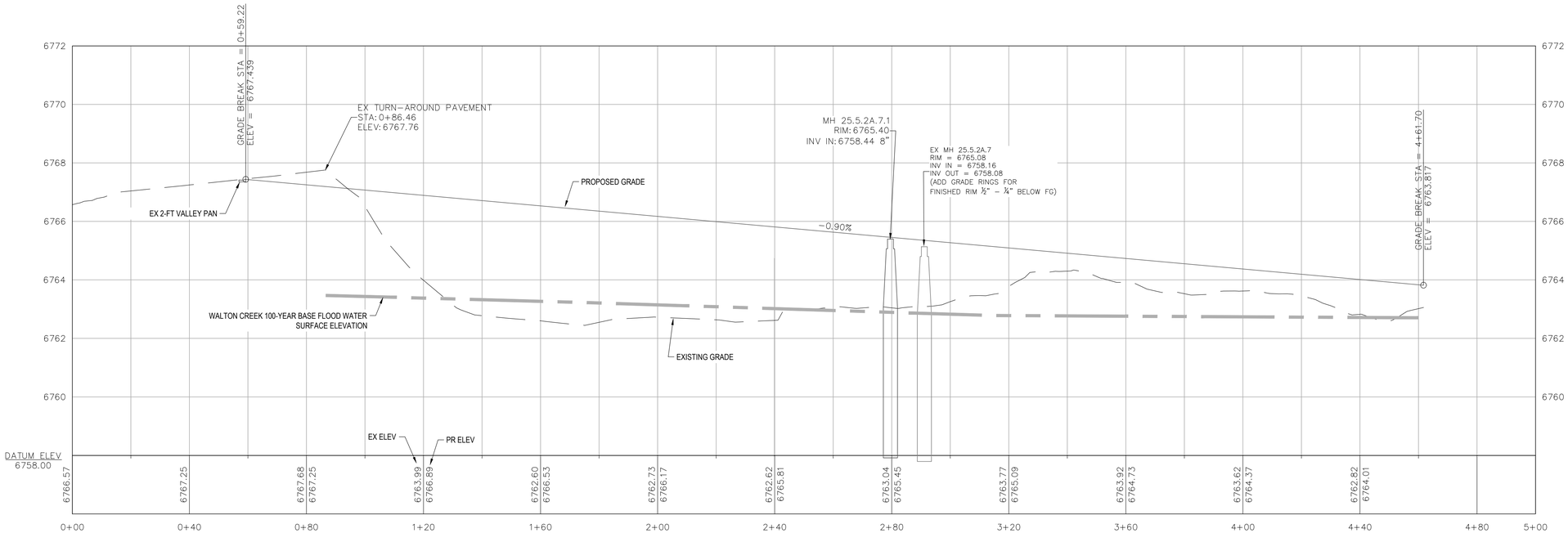
PLOT DATE: 10/12/2023 10:21 AM BY: RICHIE SOROKA CTB: PPSC-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\PPSC\CONSTRUCTION PLANS\1448-005 BIORETENTION P&P.DWG

PLOT DATE: 11/17/2023 9:11 AM BY: RICHIE SOROKA CTB: FPSE-SW.CTB



REVIEWED FOR CODE COMPLIANCE
01/12/2024



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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4 LOTS 1 AND 2

STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE

0 20' 40'

SCALE: 1" = 20'

CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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DRAWING:

ACCESS ROAD PLAN & PROFILE

SHEET NO.

C8

WALTER N. MACH
COLORADO REGISTERED PROFESSIONAL ENGINEER

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 G&D PLAN.DWG

PLOT DATE: 11/17/2023 9:11 AM BY: RICHIE SOROKA CTB: FPSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 GRD PLAN.DWG

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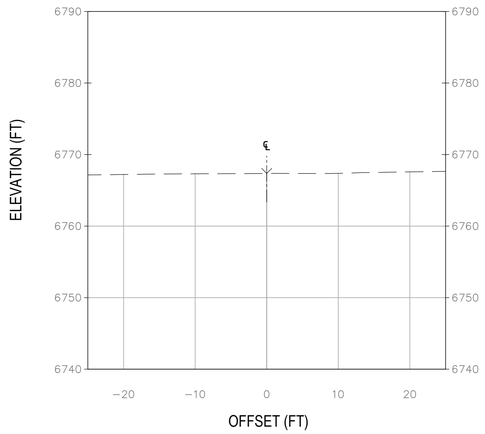

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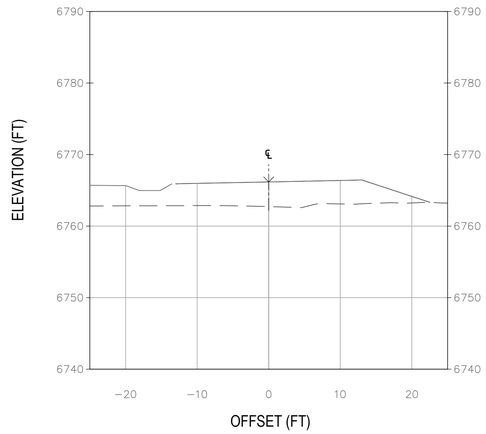

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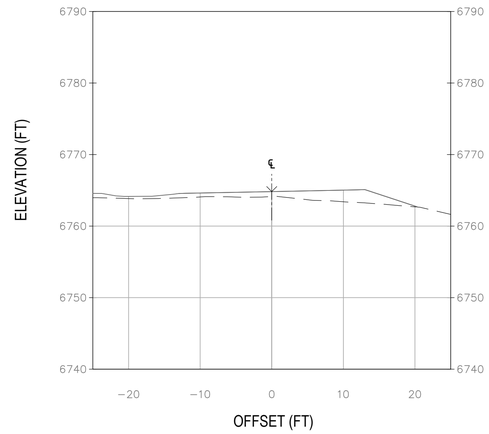

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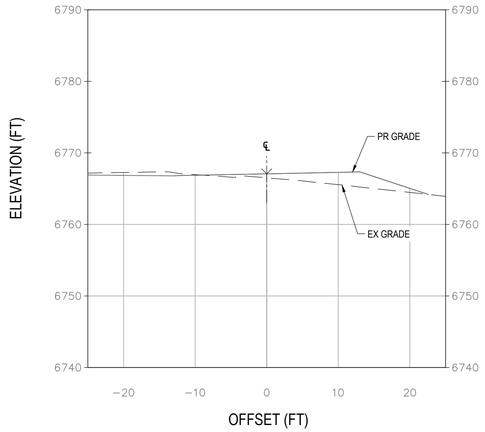

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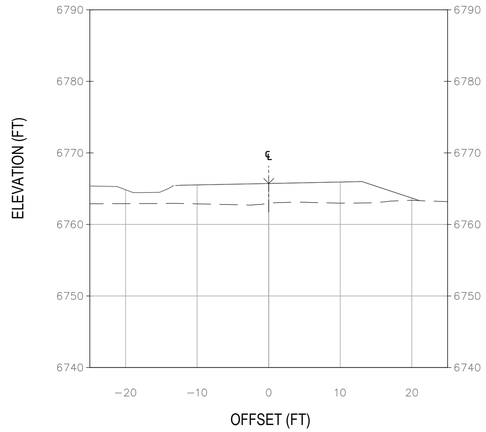

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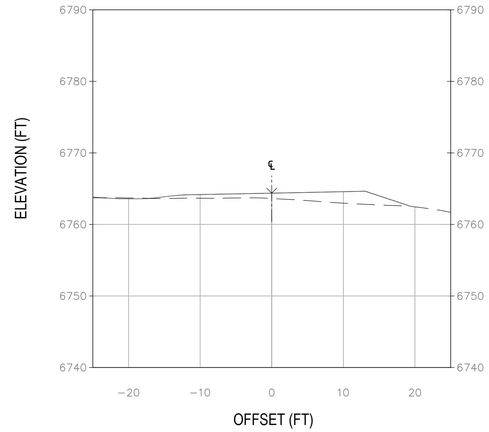

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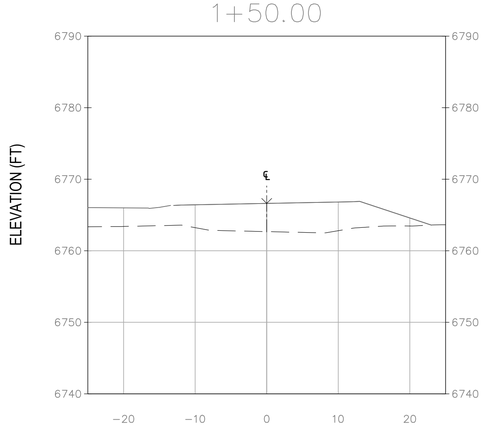

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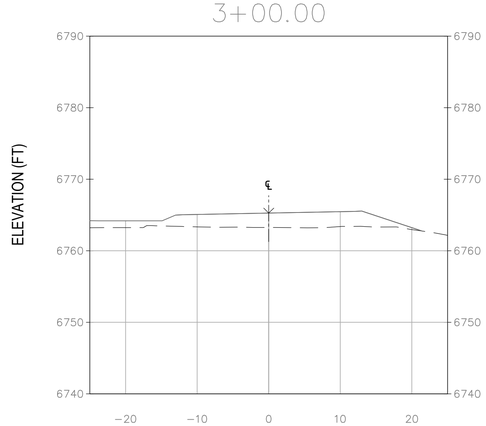

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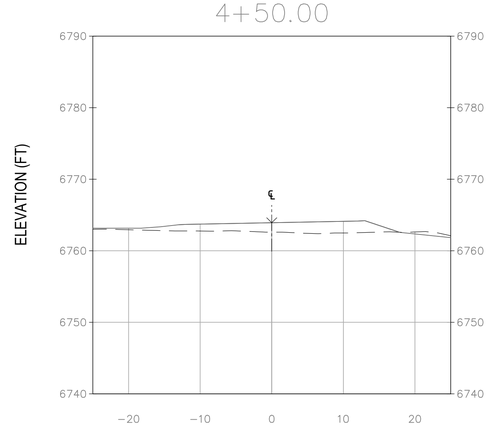

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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 10' 20'
SCALE: 1" = 10'

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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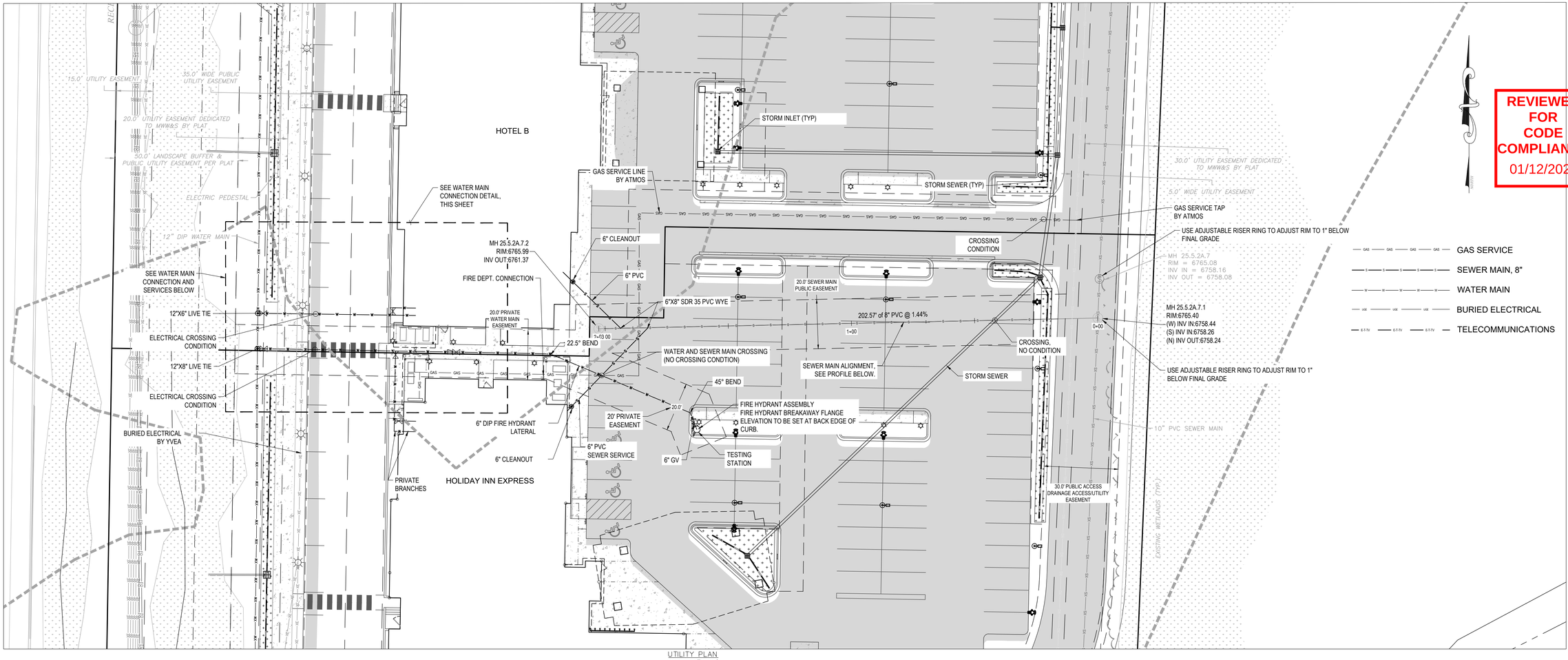
DRAWING:
ACCESS ROAD
SECTION VIEWS

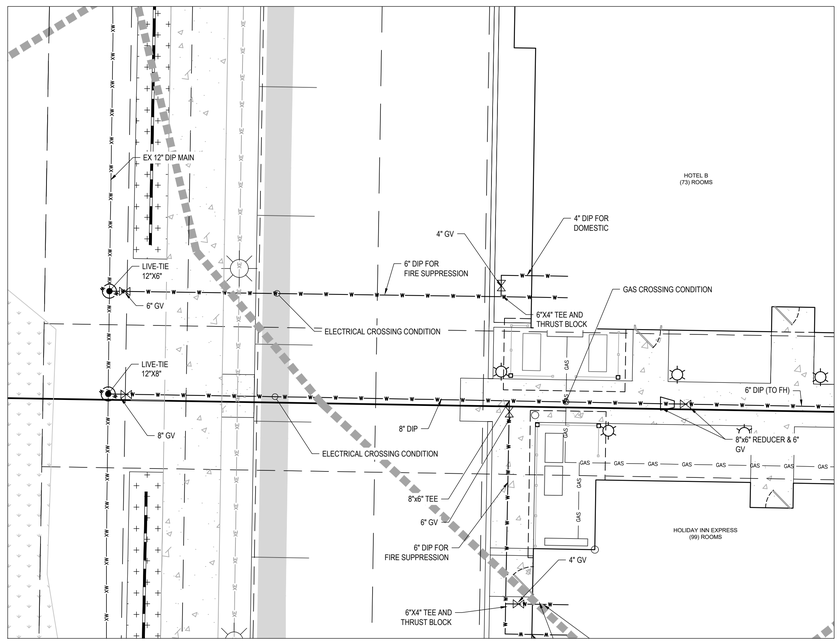
SHEET NO.
C9

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGNUSON

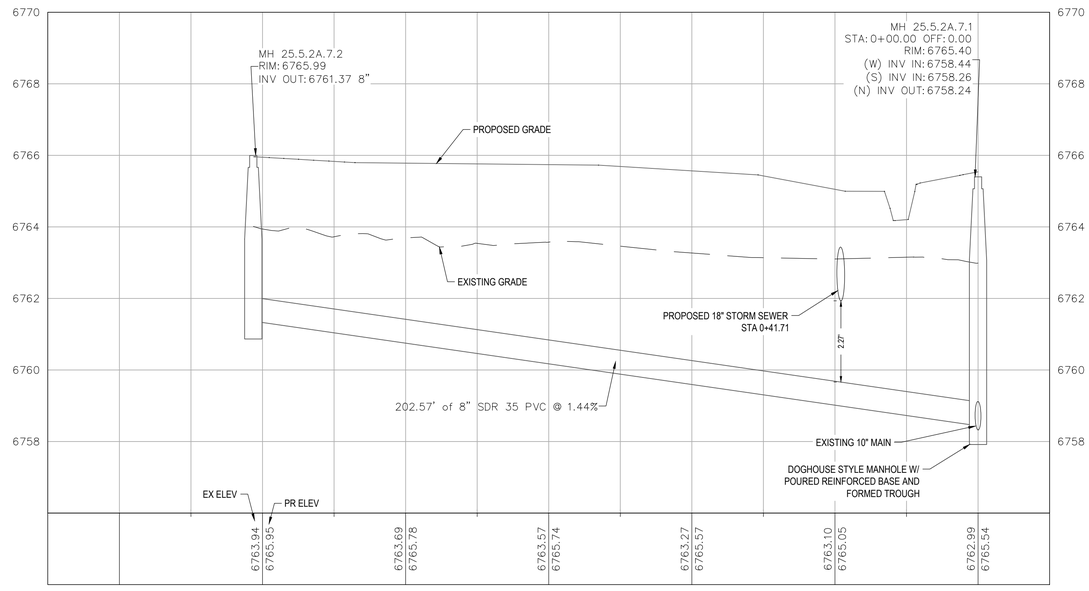
PLOT DATE: 10/12/2023 10:18 AM BY: RICHIE SOROKA CTB: FPSE-RW.CTB



UTILITY PLAN
SCALE: 1"=20'



WATER MAIN CONNECTIONS – SERVICE AND FIRE SUPRESSION
SCALE: 1"=10'



SEWER MAIN VERTICAL PROFILE
HORIZ SCALE: 1"=20'
VERT SCALE: 1"=2'

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HOLIDAY INN EXPRESS & HOTEL B
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INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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DRAWING: UTILITY PLAN

SHEET NO.
C10

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 UTILITY PLANS.DWG

PLOT DATE: 11/17/2023 8:55 AM BY: RICHIE SOROKA CTB: FPSE-RW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 SNOW STORAGE PLAN.DWG

8' WIDE CONCRETE TRAIL SHALL BE SNOW STORAGE ACCESS DURING WINTER MONTHS. KEEP CLEARED FOR PEDESTRIAN TRAFFIC.

EQUIPMENT: SKID-STEER, BOBCAT, OR SIMILAR. NO FULL SIZE TRUCKS OR PLOWS.

LOT 1
INDIAN MEADOWS
FILING NO. 3
3.875 ACRES
168,808 SF

3,680 SF SNOW STORAGE (DOWN SLOPING)

REAR UNENCUMBERED SNOW STORAGE

EXISTING FIBER OPTIC & ELECTRICAL LINES

4,750 SF SNOW STORAGE (DOWN SLOPING)

8' SIDEWALK TRAIL

20.0' ACCESS EASEMENT

CITY BUS STOP

450 SF

560 SF

130 SF

400 SF

225 SF

510 SF

530SF

360 SF

165SF

HOLIDAY INN EXPRESS

HOTEL B

310 SF

10' WIDE SNOW REMOVAL & UTILITY EASEMENT

170 SF

305 SF

*ALL SIDEWALKS BORDERING THE HOTEL SHALL BE HEATED, 3,890 SF (SEE SHEET C-3)

15.0' WIDE UTILITY EASEMENT

235 SF

80 SF

330 SF

STONE LANE

8.0' WIDE SIDEWALK (TYP.)

80.0' WIDE RIGHT OF WAY FOR STONE LANE

PROPERTY LINE

210 SF

HEATED PAVER PULL-UP 860 SF

BIORETENTION FACILITY #1

HEATED PAVER PULL-UP 1,570 SF

210 SF

BIORETENTION FACILITY #2

650 SF

210 SF

815 SF

560 SF

530 SF

210 SF

210 SF

210 SF

210 SF

2,015 SF

BIORETENTION FACILITY #3

BIORETENTION FACILITY #4

4,415 SF SNOW STORAGE

24.0' THRU ACCESS ROAD

HOTEL SHARED ACCESS

UNENCUMBERED SNOW STORAGE

EXISTING WETLANDS (TYP.)

2,150 SF SNOW STORAGE

CITY LAND
PARCEL A
INDIAN MEADOWS
SUBDIVISION

SNOW STORAGE LIMIT MATCHES EXISTING EDGE OF THE WETLANDS

5.0' WIDE UTILITY EASEMENT

30.0' UTILITY EASEMENT DEDICATED TO MWW&S BY PLAT

1,550 SF SNOW STORAGE (DOWN SLOPING)

EXISTING WETLANDS (TYP.)

CHECK VALVE (PROCO STYLE 790: LOW HEADLOSS IN-LINE)

STORMWATER OUTFALL

NORTH

SNOW STORAGE CALCULATIONS - HOLIDAY INN EXPRESS:

TOTAL PAVED AREA (PARKING LOT & SIDEWALKS)	42,000	SF
SNOW STORAGE REQUIRED FOR PAVING	21,000	SF
EVERGREEN TREE ADDITIONS	0	SF
DOWN-SLOPING REDUCTIONS	-1,120	SF
HEATED PAVEMENT REDUCTIONS	-6,999	SF
NET SNOW STORAGE REQUIRED	12,881	SF
TOTAL SNOW STORAGE PROVIDED	16,790	SF

SNOW STORAGE CALCULATIONS - HOTEL B:

TOTAL PAVED AREA (PARKING LOT & SIDEWALKS)	39,000	SF
SNOW STORAGE REQUIRED FOR PAVING	19,500	SF
EVERGREEN TREE ADDITIONS	0	SF
DOWN-SLOPING REDUCTIONS	-1,940	SF
HEATED PAVEMENT REDUCTIONS	-7,305	SF
NET SNOW STORAGE REQUIRED	10,255	SF
TOTAL SNOW STORAGE PROVIDED	22,265	SF

SNOW STORAGE AREA

HEATED PAVEMENT OUTLINE

8' WIDE CONCRETE TRAIL SHALL BE SNOW STORAGE ACCESS DURING WINTER MONTHS. KEEP CLEARED FOR PEDESTRIAN TRAFFIC.

EQUIPMENT: SKID-STEER, BOBCAT, OR SIMILAR. NO FULL SIZE TRUCKS OR PLOWS.

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HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE

0 20' 40'

SCALE: 1" = 20'

CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
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DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING:
SNOW STORAGE PLAN

SHEET NO.
C11

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MACH

NOT FOR CONSTRUCTION

PLOT DATE: 11/17/2023 9:07 AM BY: RICHIE SOROKA CTB: PPSE-BW.CTB

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\PPSE\CONSTRUCTION PLANS\1448-005 SITE PLAN.DWG

US HIGHWAY 40
RECEPTION NO. 680280 (115' R.O.W.)

OPEN SPACE
0.595 ACRES
25,913 SF

INDIAN MEADOWS F4
LOT 1
1.768 ACRES
76,999SF

HOLIDAY INN EXPRESS
(99 ROOMS)

INDIAN MEADOWS F4
LOT 2
1.491 ACRES
64,965 SF

HOTEL B
(73 ROOMS)

MAIN ENTRY

MAIN ENTRY

HOMEWOOD SUITES MAIN ENTRANCE

HOTEL SIGN

20'x20' SIGN EASEMENT

8' SIDEWALK/TRAIL

CITY BUS STOP

VALLEY PAN

10' WIDE SNOW REMOVAL & UTILITY EASEMENT

STONE LANE

8.0' WIDE SIDEWALK (TYP.)

80.0' WIDE RIGHT OF WAY FOR STONE LANE

8' WIDE SIDEWALK (TYP.)

EX ASPHALT (TYP)

ASPHALT TURNAROUND

HOMEWOOD SUITES SECONDARY ACCESS CL

15.0' UTILITY EASEMENT

50.0' LANDSCAPE BUFFER & PUBLIC UTILITY EASEMENT PER PLAT

EXISTING FIBER OPTIC & ELECTRICAL LINES

50.0' WIDE PUBLIC ACCESS, UNDERGROUND UTILITY & EMERGENCY SERVICE VEHICLE ACCESS EASEMENT

ELECTRIC PEDESTAL

20.0' UTILITY EASEMENT DEDICATED TO MWW&S BY PLAT

35.0' WIDE PUBLIC UTILITY EASEMENT

EX. FIRE HYDRANT ASSEMBLY

15.0' WIDE UTILITY EASEMENT

STORM PEAK APTS

FEMA FLOODPLAIN BOUNDARY

ZONE AE

FLOODWAY

BLOWOFF HYDRANT

EXISTING WETLANDS (TYP.)

FEMA FLOODWAY BOUNDARY

5.0' WIDE UTILITY EASEMENT
30.0' UTILITY EASEMENT DEDICATED TO MWW&S BY PLAT

EXISTING WETLANDS (TYP.)

OPEN SPACE

PROPERTY LINE

LOT 1 OPEN SPACE: 26,800 SF

LOT 2 OPEN SPACE: 26,600 SF

REVIEWED FOR CODE COMPLIANCE
01/12/2024

FOUR POINTS SURVEYING ENGINEERING
410 S. Lincoln Ave, Unit 15
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
www.fourpointsse.com

No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'
CONTOUR INTERVAL = 1 FT

DATE:	11-17-2023
JOB #:	1448-005
DRAWN BY:	AP/DSC/AAC
DESIGN BY:	AP/DSC/AAC/WNM
REVIEW BY:	FPSE

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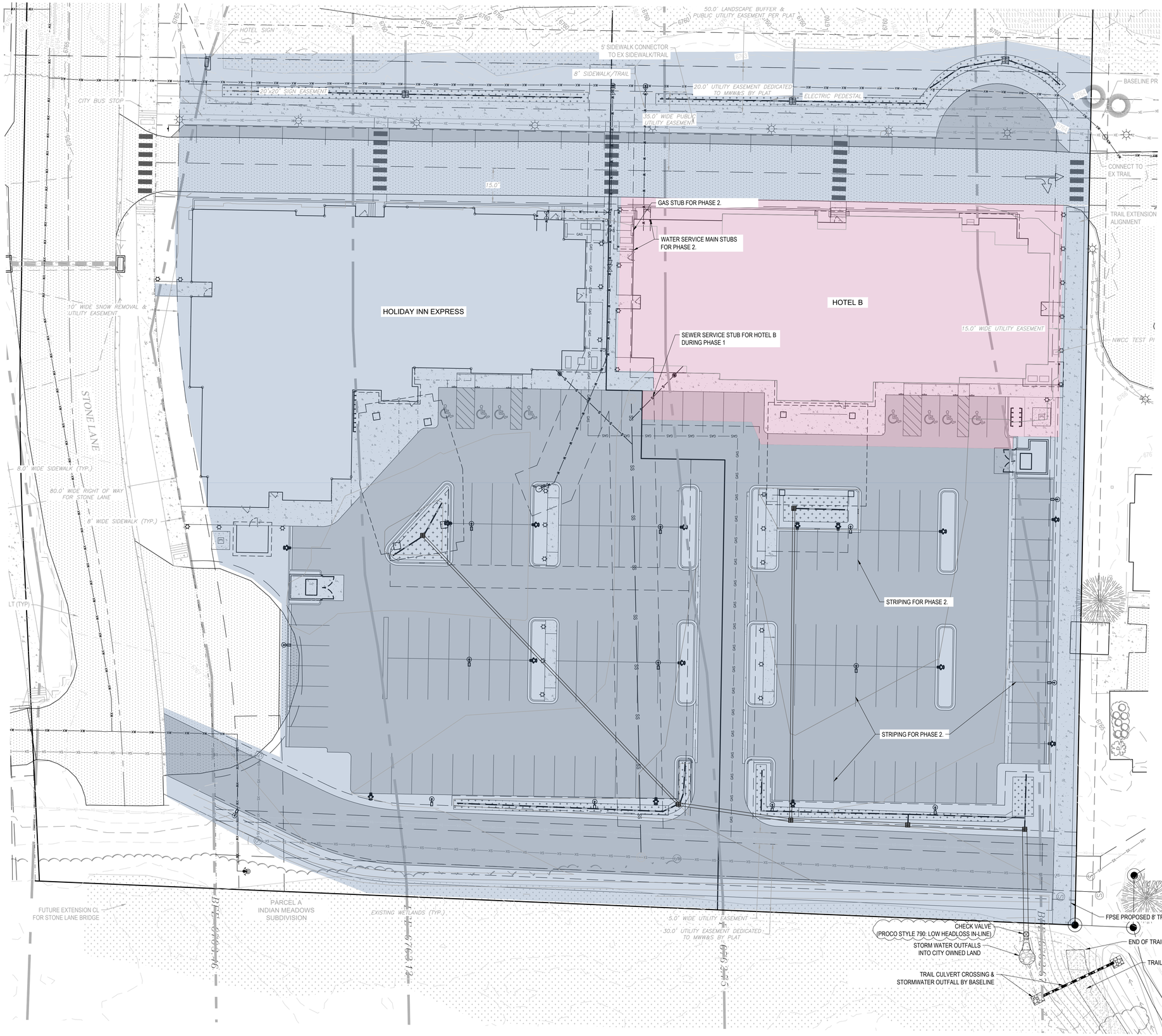
DRAWING:
OPEN SPACE PLAN

SHEET NO.
C12

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MACKEY

NOT FOR CONSTRUCTION



PHASE 1 - HOLIDAY INN EXPRESS

PHASE 2 - HOTEL B

GENERAL NOTES:

1. SANITARY SERVICES PROVIDED TO BOTH HOLIDAY INN EXPRESS AND HOTEL B WILL BE DONE DURING PHASE 1
2. WATER SERVICES PROVIDED TO HOLIDAY INN EXPRESS WILL BE DONE DURING PHASE 1. WATER SERVICES PROVIDED TO HOTEL B WILL BE DONE DURING PHASE 2
3. ALL ELECTRICAL AND GAS SERVICES PROVIDED TO HOLIDAY INN EXPRESS WILL BE DONE DURING PHASE 1.
4. ALL ELECTRICAL AND HAS SERVICES PROVIDED TO HOTEL B WILL BE DONE DURING PHASE 2.
5. PARKING LOT WILL BE PAVED IN IT'S ENTIRETY DURING PHASE 1, BUT STRIPING WILL ONLY BE DONE FOR THE HOLIDAY INN EXPRESS PORTION OF THE PARKING LOT DURING PHASE 1. STRIPING FOR HOTEL B WILL BE DONE DURING PHASE 2.
6. ALL STORMWATER IMPROVEMENTS WILL BE DONE DURING PHASE 1.

PHASE 1 PARKING:

PHASE 1 WILL INCLUDE PAVING OF THE ENTIRE PARKING LOT AND STRIPING FOR HOLIDAY INN'S SIDE OF THE PARKING LOT. PHASE 1 WILL PROVIDE 89 PARKING SPACES FOR HOLIDAY INN EXPRESS.

PHASE 2 PARKING:

PHASE 2 WILL INCLUDE STRIPING FOR HOTEL B'S SIDE OF THE PARKING LOT. PHASE 2 WILL PROVIDE 73 PARKING SPACES FOR HOTEL B. A TOTAL OF 162 PARKING SPACES WILL BE AVAILABLE WHEN PHASE 2 CONCLUDES.

REVIEWED FOR CODE COMPLIANCE 01/12/2024

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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'
CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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DRAWING: PHASING PLAN

SHEET NO.
C13

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MACH

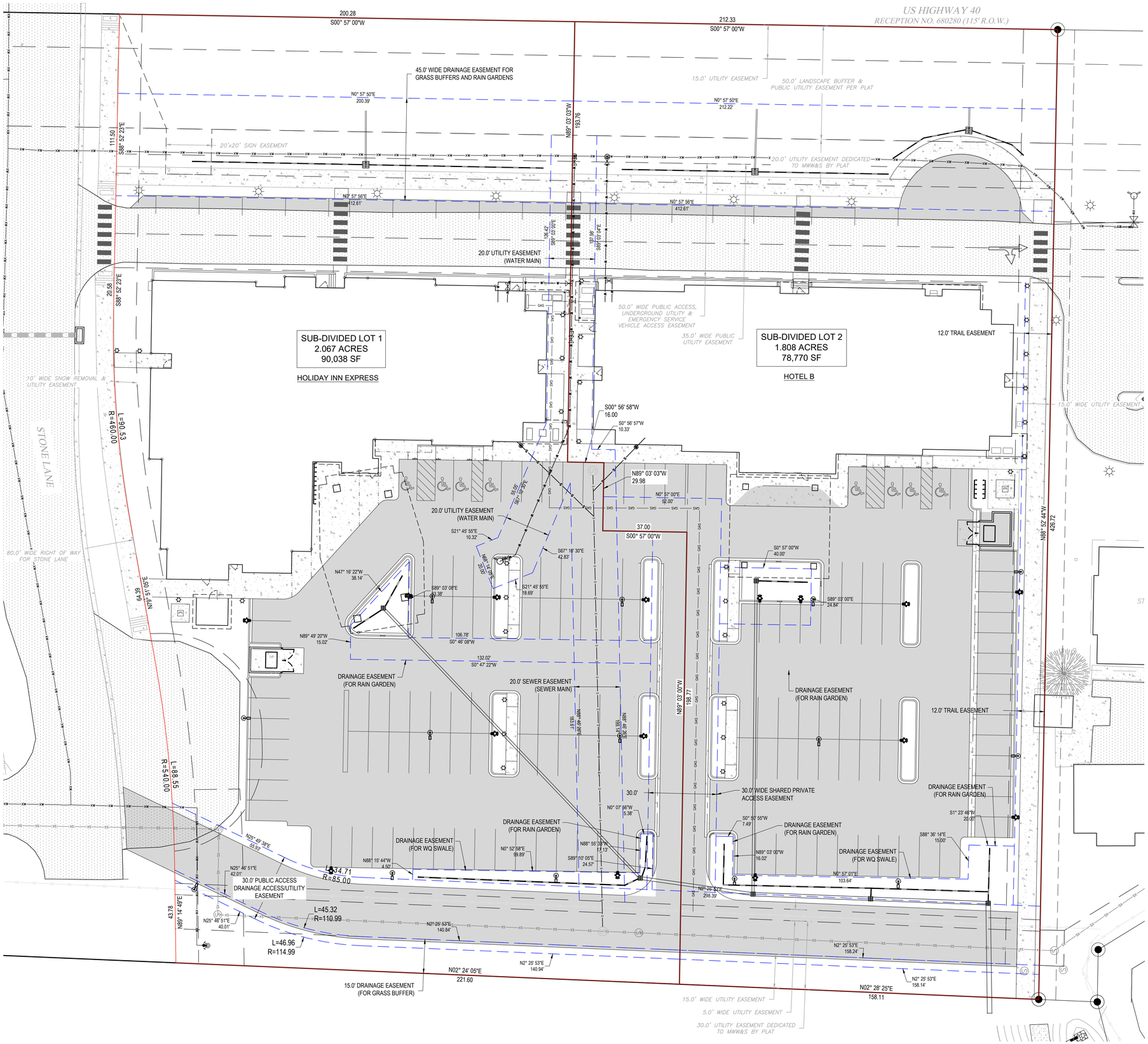
CTB: FPSE-BW.CTB
PLOT DATE: 10/12/2023 10:21 AM BY: RICHIE SOROKA
DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 PHASING PLAN.DWG

NOT FOR CONSTRUCTION

CTB: FPSE-BW.CTB

PLOT DATE: 10/12/2023 10:22 AM BY: RICHIE SOROKA

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 PRELIM PLAT.DWG



PROPERTY LINE & EASEMENT LEGEND

- PROPERTY LINE
- PROPOSED EASEMENTS

PROPOSED UTILITY LEGEND

- GAS SERVICE
- SEWER MAIN, 8"
- WATER MAIN
- BURIED ELECTRICAL
- TELECOMMUNICATIONS

PROPOSED EASEMENT NOTES:

1. ALL PROPOSED ACCESS EASEMENTS SHALL BE PRIVATE.
2. ALL PROPOSED UTILITY EASEMENTS SHALL BE PRIVATE.
3. ALL PROPOSED DRAINAGE EASEMENTS SHALL BE PRIVATE.

LEGAL DESCRIPTION:

LOT 1 INDIAN MEADOWS, FILING 3, LOCATED IN THE SE ¼ OF SECTION 28, TOWNSHIP 6 NORTH, RANGE 84 WEST OF THE 6TH P.M., CITY OF STEAMBOAT SPRINGS, COUNTY OF ROUTT, STATE OF COLORADO.

REVIEWED FOR CODE COMPLIANCE
01/12/2024

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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'

CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
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REVIEW BY: FPSE

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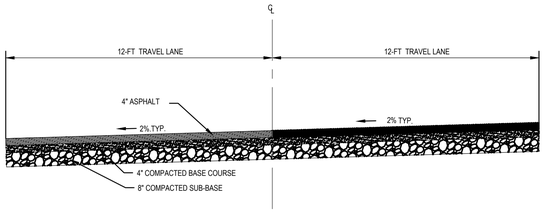
DRAWING:
EASEMENT PLAN

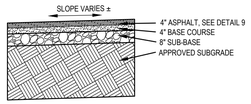
SHEET NO.
C14

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGILL

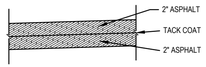
CTB: FPSE-BW.CTB
PLOT DATE: 11/17/2023 9:03 AM BY: RICHIE SOROKA



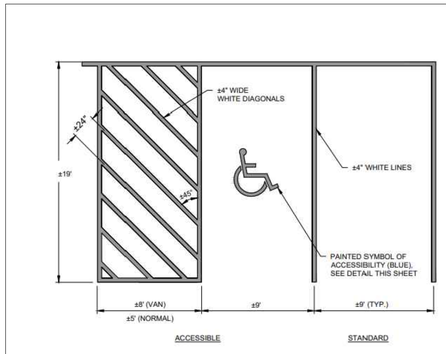
TYPICAL ROAD SECTION - 50' ROW
N.T.S.



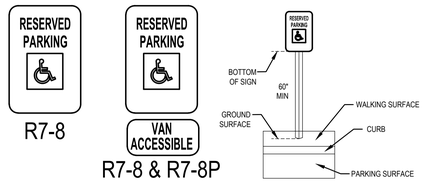
STANDARD PAVEMENT SECTION
N.T.S.



ASPHALT SECTION DETAIL
N.T.S.

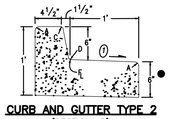


PARKING PAVEMENT MARKINGS
NOT TO SCALE



Parking Sign Notes:

1. Parking space identification signs must include the International Symbol of Accessibility: A profile view of a wheelchair with an occupant.
2. Signs identifying van parking spaces must contain the designation "Van Accessible"
3. The required "Van Accessible" designation is intended to be informative, not restrictive, in identifying those spaces that are better suited for van use.
4. Enforcement of motor vehicle laws, including parking privileges, is a local matter.
5. Signs must be 60" Min. above finished ground surface measured from bottom of the sign.



CURB AND GUTTER TYPE 2
(SECTION IB)
(6" BARRIER – 1' GUTTER)

GENERAL NOTES

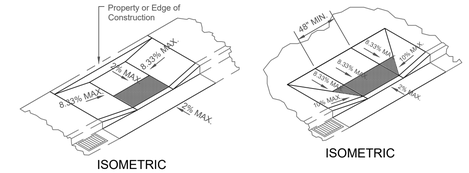
1. ON CURVES 3 DEGREES OR SHARPER, CURBS AND/OR GUTTERS ARE TO BE PLACED ON THE ARC OF THE CURVE UNLESS OTHERWISE NOTED ON THE PLANS. A MAXIMUM CHORD LENGTH OF 10 FEET MAY BE USED WHEN THE DEGREE OF CURVE IS LESS THEN 3 DEGREES.
2. CONCRETE SHALL BE CLASS B.
3. PROFILE GRADE OF CURBS AND GUTTERS SHALL BE LOCATED AT THE FLOW LINE.

▲ EXPANSION JOINTS SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURE. EXPANSION JOINT MATERIAL SHALL BE ½ IN. THICK AND SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE.

(1) GUTTER CROSS SLOPES SHALL BE ½ IN./FT. WHEN DRAINING AWAY FROM CURB AND 1IN./FT. WHEN DRAINING TOWARD CURB.

● WHEN TIE BARS ARE REQUIRED, THE GUTTER THICKNESS SHALL BE INCREASED TO THE PAVEMENT THICKNESS T. BARS SHALL BE EPOXY-COATED #4 CONFORMING TO AASHTO M 284M AND SPACED 2 FT.-6 IN. THEY SHALL BE INSERTED T/2 AND 1/2 LENGTH INTO THE GUTTER.

* CONCRETE SHALL CONTAIN 1.5 POUNDS PER CUBIC YARD APPROVED POLYPROPYLENE FIBERS AND HAVE A NOMINAL AGGREGATE SIZE OF ⅜ IN.



ISOMETRIC

ALTERNATE "B" CURB-RAMP SHALL BE USED ON NARROW SIDEWALK AT MID BLOCK LOCATIONS WHEN STANDARD CURB RAMP LAY-OUT IS NOT FEASIBLE. THE 6" CURB SHALL BE INSTALLED ALONG THE EDGE OF THE BACK OF SIDWALK

ISOMETRIC

ALTERNATE "C" CURB-RAMP SHALL BE USED AS A VARIATION OF A STANDARD RAMP FOR MID-BLOCK LOCATIONS WHERE THERE IS ENOUGH ROOM FOR TOP LEVEL LANDING.

SEE GENERAL NOTES, PAGE D700-A790
FOR ALL CURB RAMP ALTERNATES (A, B, C)

ALTERNATE RAMPS "B" & "C"
740

Sidewalk Notes:

1. Minimum Sidewalk width shall be 4'-0" for residential, 5'-0" for commercial, and 6'-0" clear width whenever attached to the curb.
2. Sidewalk slope shall be maximum of 2% cross slope.
3. Whenever the width of the sidewalk is less than 5'-0", a 5' x 5' passing area with a maximum 2% slope in any direction at intervals of 200' shall be installed.
4. Whenever changing direction in a sidewalk, install a 5' x 5' passing area with maximum 2% slope in any direction.
5. Objects such as tree branches, signs, water fountains, etc. shall not protrude into the sidewalk more than 4" at the heights between 27" and 80".

Ramps:

When the rise in elevation is greater than 30" a series of ramps and landings will be required.

- Landing shall be 5'-0" in length and no greater than 2% in any direction.
- The maximum of a run is determined by the rise (30" maximum) and slope, as shown in the following table

Max. Rise	Slope	Max. Length	Max. Rise	Slope	Max. Length
30 in.	1:12	30 ft.	30 in.	1:16	40 ft.
30 in.	1:13	32.5 ft.	30 in.	1:17	42.5 ft.
30 in.	1:14	35 ft.	30 in.	1:18	45 ft.
30 in.	1:15	37.5 ft.	30 in.	1:19	47.5 ft.

NOTES -- 790

General Notes:

a. The standard curb-ramp lay-out shall be used whenever possible. Any deviation from the standard curb-ramp plans shall be approved by the City Engineer or designee on a case by case basis.

b. The standard curb-ramp drawings supersede all previous drawings and shall be part of the new curb ramp standard drawings.

c. All alternate ramps shall be approved by the City Engineer prior to construction.

Curb Ramp Notes:

1. A curb ramp is defined as the entire concrete surface which includes the ramp & flared sides. The 4' - 0" wide center portion, including the detectable surface, shall have the sloped plane of 8.33% (1:12) maximum, and cross slope, not to exceed 2%. The "flared side" of the ramp and shall lie on a slope of 10% (1:10) maximum measured along the curb. The curb ramp shall have a surface tolerance of 1/4" per 10 foot straight edge maximum.

2. The ramp center line and path of travel must be parallel to the sidewalk. The full width of the ramp shall lie within the crosswalk area. It is desirable that the location of the ramp be as close as possible to the center of the crosswalk.

3. The 4'-0" min. distance between flared sides of the two adjacent curb ramps may be reduced to 3'-0" with documentation of hardship indicating legal and or physical constraints provided to the City Engineer.

4. Existing utility boxes and covers shall be adjusted flush with the curb ramp surface and shall not straddle any change in plane or material. Existing utility box frames and covers shall have matching surface finish on the entire frame and cover. New utility boxes shall not be placed within the detectable border.

5. The surface of the curb ramp and detectable surface material shall be stable, firm and slip resistant. The concrete curb ramp surface shall be broom finished transverse to the axis of the ramp and shall be slightly rougher than the finish of the adjacent sidewalk surface.

6. A level landing 4'-0" deep, with a 2% maximum slope in each direction shall be provided at the upper end of each curb ramp to allow safe egress from the ramp surfaces. The width of the level landing shall be at least as wide as the width of the ramp.

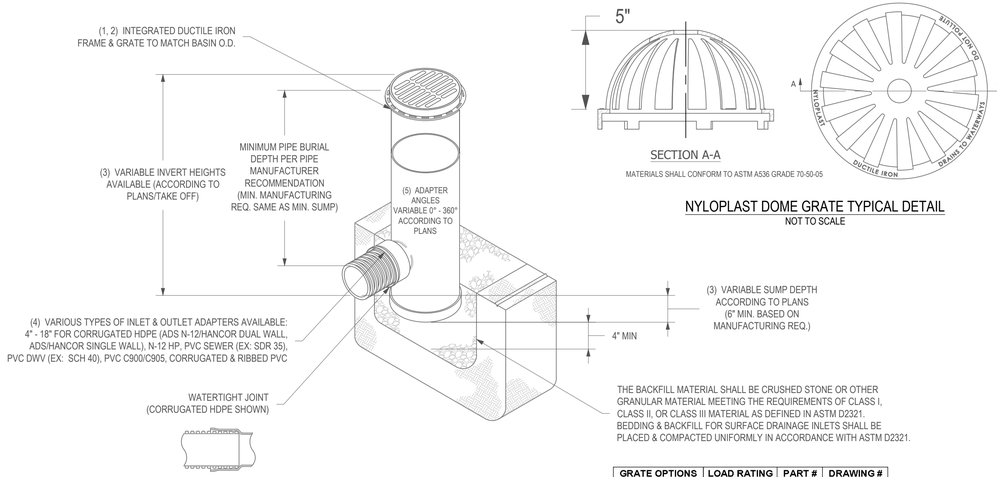
7. When vertical obstructions are present near the curb at the end of the flared side or when the curb-ramp is diagonal to the curb which will result in an extremely long flared side surface, the affected flared side may be cut and terminated perpendicular to the curb, provided that the maximum slope of 10% is achieved on each of the resulting planes.

8. The length of ramp may be constructed up to 30 feet long to achieve the slope requirement.

9. Existing vertical utility poles or street light poles may be incorporated into the flared sides, if necessary. The vertical obstruction shall be a minimum of 6 inches away from the edge of the ramp. Pedestrian crosswalk push button poles, fire department call box poles and other poles with activated devices, may not be placed in the curb-ramp at any time. No new vertical obstructions may be located in the curb ramp or the grooved border.

REVIEWED FOR CODE COMPLIANCE
01/12/2024

NYLOPLAST 24"-48" DRAIN BASIN

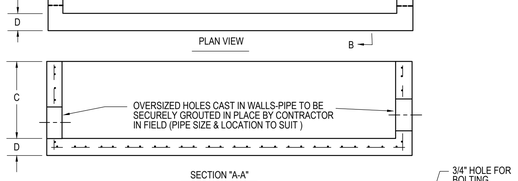


SECTION A-A
MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05

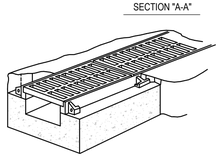
NYLOPLAST DOME GRATE TYPICAL DETAIL
NOT TO SCALE

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899CGP	7001-110-212
STANDARD	MEETS H-20	1899CGS	7001-110-213
SOLID COVER	MEETS H-20	1899CGC	7001-110-214
DOME	N/A	1899CGD	7001-110-215
DROP IN GRATE	LIGHT DUTY	1801DI	7001-110-074

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.



DIMENSION SCHEDULE
A = 12 INCHES
B = 46 FEET
C = 2.5 FEET
D = 6 INCHES

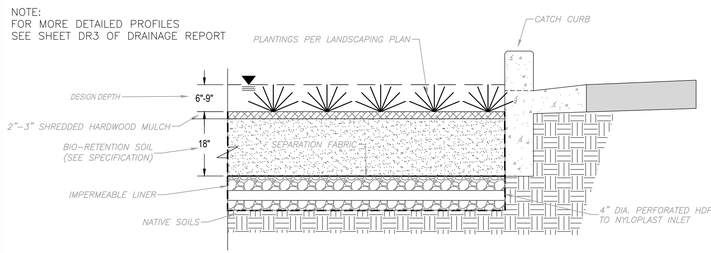


ISOMETRIC VIEW

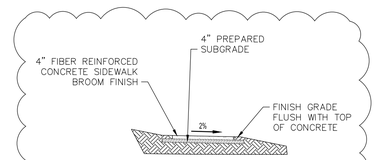
CONCRETE TO TEST 4000PSI AT 20 DAYS AFTER INSTALLATION

TRENCH DRAIN TYPICAL DETAILS
NOT TO SCALE

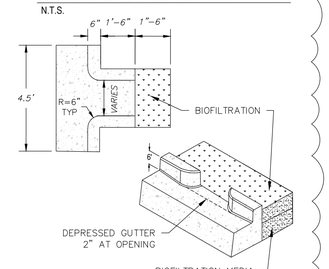
NOTE:
FOR MORE DETAILED PROFILES
SEE SHEET DR3 OF DRAINAGE REPORT



BIO-RETENTION TYPICAL DETAIL
N.T.S.



TYPICAL SIDEWALK SECTION
N.T.S.



TYPICAL CURB CUT
N.T.S.

FOUR POINTS SURVEYING ENGINEERING
410 S. Lincoln Ave, Unit 15
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Steamboat Springs, CO 80487
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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS
INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

DETAILS N.T.S

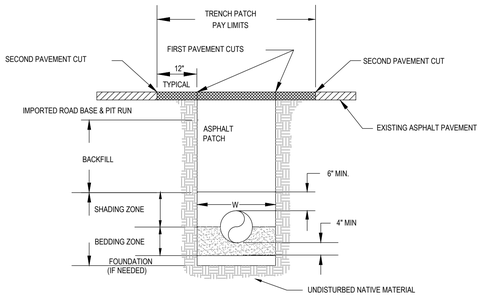
DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE
IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING: DETAILS (1)

SHEET NO.
C15

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 DETAILS.DWG

PLOT DATE: 11/17/2023 9:03 AM BY: RICHIE SOROKA CTB: PPSE-BW.CTB



NOTES:
A GUIDE FOR DESIRABLE TRENCH WIDTH (W) AT THE TOP OF THE PIPE SHALL BE THE NOMINAL DIAMETER OF THE PIPE PLUS 12-INCHES ON EACH SIDE OF THE PIPE.

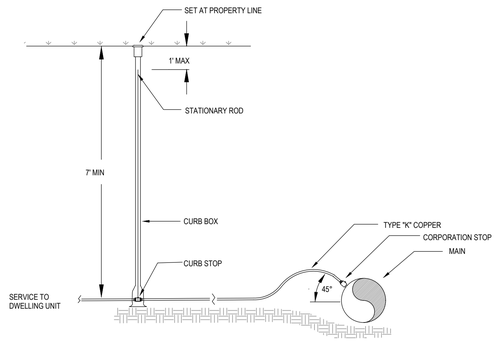
A SECOND PAVEMENT CUT SHALL BE REQUIRED PRIOR TO PLACING THE ASPHALT PATCH. REMOVE ALL IRREGULAR ASPHALT EDGES A MINIMUM OF 12-INCHES BEYOND ANY DAMAGED SURFACE TO A CLEAN VERTICAL EDGE. APPLY A BITUMINOUS TACK COAT PRIOR TO PLACING THE ASPHALT PATCH.

THE ASPHALT PATCH SHALL BE PLACED IN A 4-INCH LIFT AND ROLLER COMPACTED TO MATCH THE ADJACENT ASPHALT EDGES.

SUB-BASE MATERIALS SHALL CONSIST OF 4-INCHES OF ROAD BASE ON 8-INCHES OF PIT-RUN. COMPACTION REQUIREMENTS SHALL EXCEED 95% MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 TEST PROCEDURES.

PAY LIMIT WIDTH FOR ASPHALT PATCH SHALL BE MEASURED AS FOLLOWS: PAY WIDTH = W + 2 FT.

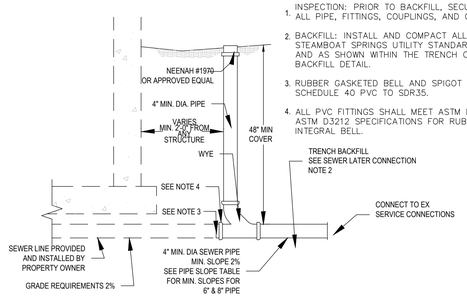
TRENCH CROSS SECTION DETAIL
N.T.S.



WATER SERVICE LINE DETAIL
N.T.S.

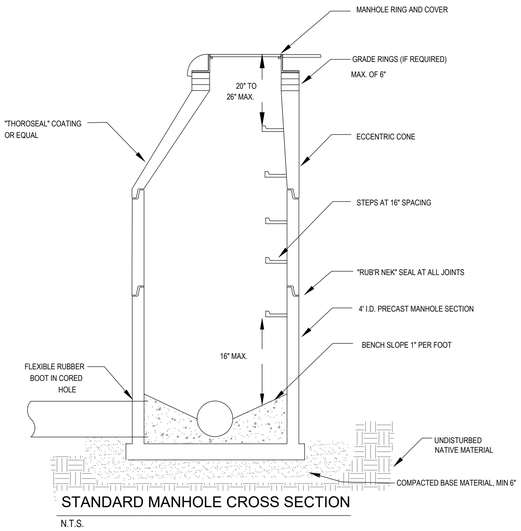
SEWER LATERAL CONNECTION NOTES:

1. INSPECTION: PRIOR TO BACKFILL, SECURE ACCEPTANCE BY ENGINEER FOR ALL PIPE, FITTINGS, COUPLINGS, AND GRADE.
2. BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER CITY OF STEAMBOAT SPRINGS UTILITY STANDARD SPECIFICATIONS SECTION 24 AND AS SHOWN WITHIN THE TRENCH CROSS SECTION AND PIPE EMBEDMENT BACKFILL DETAIL.
3. RUBBER GASKETED BELL AND SPIGOT TYPE COUPLER FOR TRANSITION FROM SCHEDULE 40 PVC TO SDR35.
4. ALL PVC FITTINGS SHALL MEET ASTM D3034 SPECIFIATIONS, AND SHALL ALSO MEET ASTM D3212 SPECIFICATIONS FOR RUBBER GASKETED BELL AND SPIGOT TYPE WITH INTEGRAL BELL.

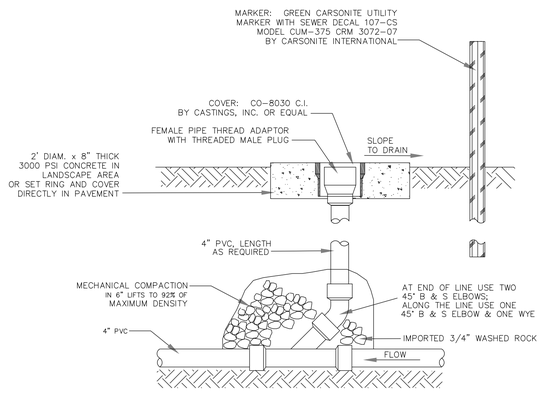


MINIMUM PIPE SLOPES FOR SEWER SERVICES		
4"	1/4" PER FOOT	2%
6"	1/8" PER FOOT	1%
8"	1/16" PER FOOT	0.5%

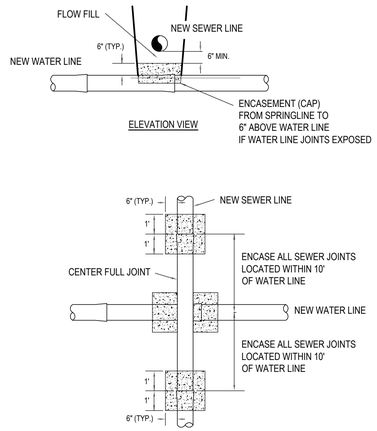
SERVICE LATERAL DETAIL
N.T.S.



STANDARD MANHOLE CROSS SECTION
N.T.S.

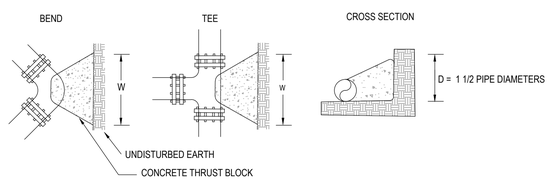


SEWER SERVICE & FOUNDATION DRAIN CLEANOUT
N.T.S.



PLAN VIEW

WATER AND SEWER CROSSING CONDITION DETAIL
NOT TO SCALE

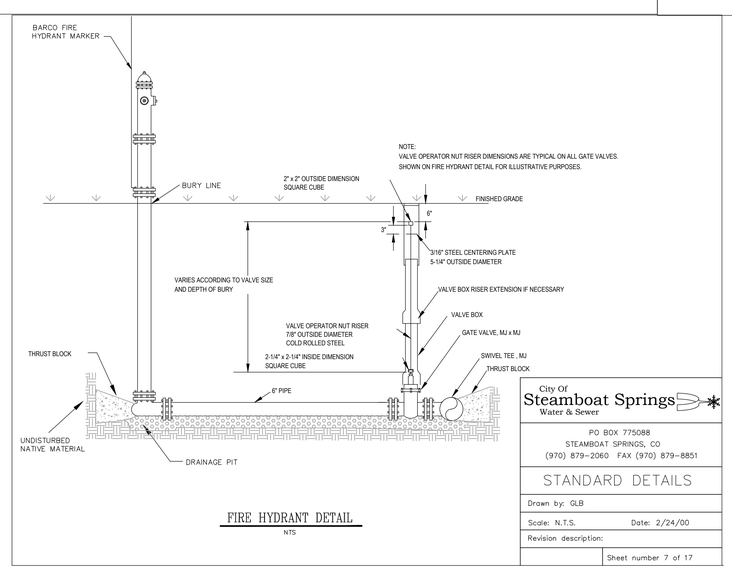


THRUST BLOCK BEARING AREA
IN SQUARE FEET. (AREA = W X D)

	SERVICE SIZE (INCHES)			
FITTING TYPE	<6"	8"	10"	12"
45° OR LESS BEND	3	3	3	5
90° BEND	3	4	6	9
TEE OR PLUG	3	3	4	6

NOTE: THRUST BLOCKS ARE REQUIRED IN ADDITION TO JOINT RESTRAINT.

THRUST BLOCK DETAILS
NOT TO SCALE



FIRE HYDRANT DETAIL
NTS

City Of
Steamboat Springs
Water & Sewer

PO BOX 775088
STEAMBOAT SPRINGS, CO
(970) 879-2060 FAX (970) 879-8851

STANDARD DETAILS

Drawn by: GLB

Scale: N.T.S. Date: 2/24/00

Revision description:

Sheet number 7 of 17

REVIEWED FOR CODE COMPLIANCE
01/12/2024

FOUR POINTS SURVEYING ENGINEERING
410 S. Lincoln Ave, Unit 15
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
www.fourpointsse.com

No.	DATE	REVISIONS	INT
1	9/13/23	CURB INLETS REPLACED WITH CURB CUTS, INLET SCHEDULE, CHECK VALVE SPECS, EARTHWORK CALCS	RS
2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

DETAILS N.T.S

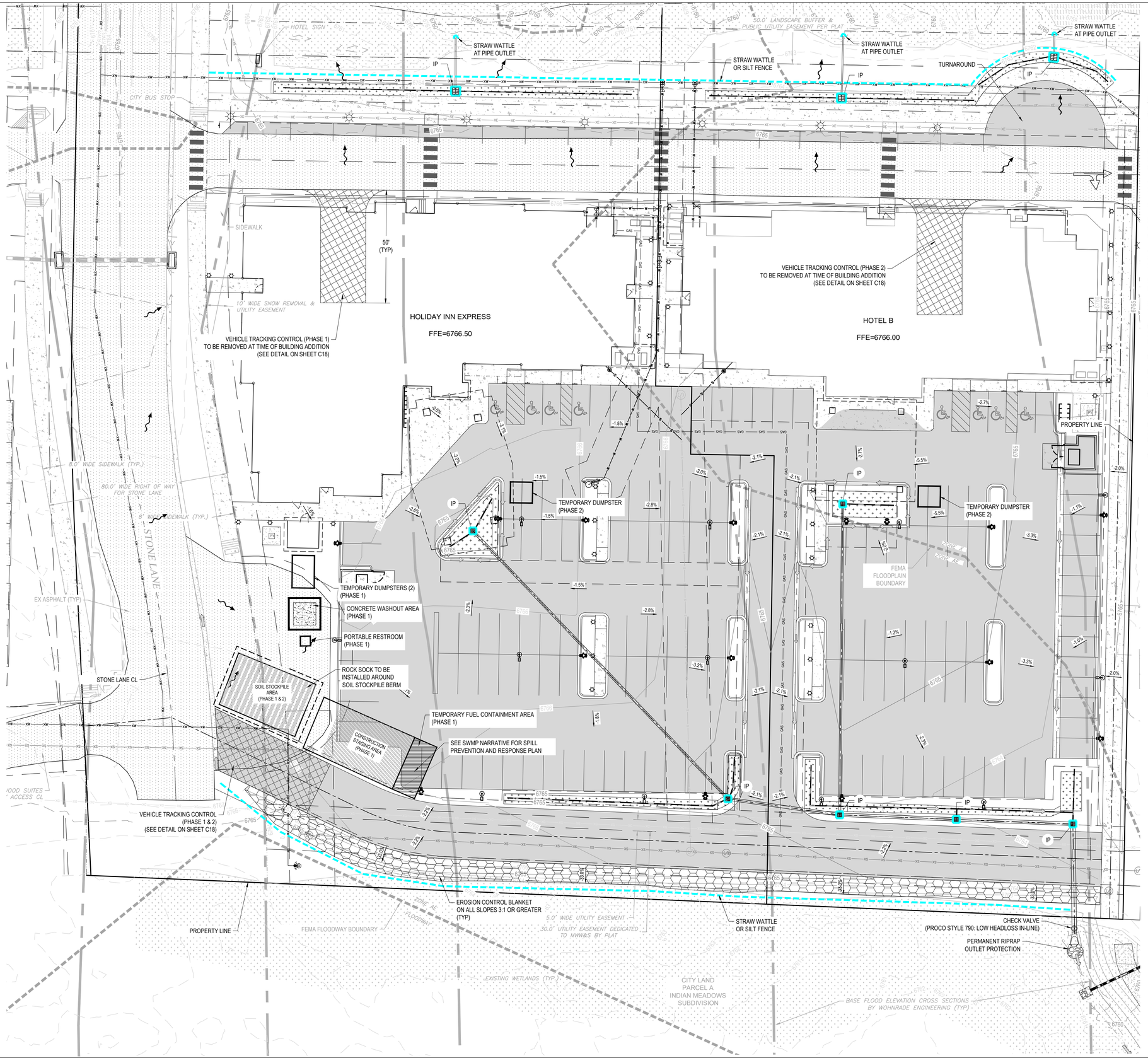
DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING: DETAILS (2)

SHEET NO.
C16

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 DETAILS.DWG



STORMWATER SITE MANAGEMENT NOTES:

1. THIS PLAN SHALL BE KEPT ON SITE AT ALL TIMES AND UPDATED TO REFLECT ANY CHANGES.

2. CONCRETE WASTE AND WASHOUT WATER FROM MIXING TRUCKS SHALL BE CONTAINED ON SITE, REMOVED FROM THE SITE, AND PROPERLY DISPOSED. MATERIALS SHOULD NOT ENTER STATE WATERS.

3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION AND ESTABLISHING ANY REQUIRED PERMANENT BEST MANAGEMENT PRACTICES (BMPS).

4. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL LAWS. IN ADDITION CONTRACTOR MUST OBTAIN REQUIRED PERMITS.

5. CLEARING OR GRADING SHALL NOT BEGIN UNTIL ALL SEDIMENT CONTROL DEVICES HAVE BEEN INSTALLED.

6. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE RIGHT OF WAY, PRIVATE PROPERTY, OR WATER WAYS AS A RESULT OF THE CONSTRUCTION ACTIVITIES.

7. ALL INGRESS, EGRESS POINTS AND VEHICLE ACCESS POINTS ONTO DISTURBED SITE MUST BE STABILIZED WITH A VEHICLE TRACKING CONTROL PAD. ACCESS SHALL ONLY BE VIA APPROVED LOCATIONS AS SHOWN ON APPROVED CSMP.

8. SOIL STABILIZATION MEASURES SHALL BE IN PLACE AND AREAS ARE TO BE REVEGETATED:(1) FOR STOCKPILES, IF INACTIVE FOR MORE THAN 30 DAYS (2) FOR AREAS OF LAND DISTURBANCE WITHIN ONE GROWING SEASON.

9. INLET PROTECTION SHALL BE INSTALLED IN CONJUNCTION WITH STORM DRAIN INLETS WHERE DRAINAGE AREA IS NOT VEGETATED.

10. BMPS SHALL BE USED, MODIFIED, AND MAINTAINED WHENEVER NECESSARY TO REFLECT CURRENT CONDITIONS. BMPS SHALL BE INSPECTED WEEKLY AND AFTER EVERY PRECIPITATION EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BMPS WHEN THE SEDIMENT LEVEL REACHES ½ THE HEIGHT OF THE BMP.

11. EMERGENCY ACCESS MUST BE KEPT OBSTACLE FREE AND PASSABLE AT ALL TIMES.

12. FOR ANY WORK TO BE DONE IN THE RIGHT OF WAY, COORDINATE WITH THE CITY CONSTRUCTION SITE MANAGER REGARDING SPECIAL PERMITTING.

13. WHERE REQUIRED AS PART OF THE ROW PERMIT OR WHERE SITE WORK AFFECTS THE PEDESTRIAN OR VEHICLE TRAVEL WAY, TRAFFIC CONTROL SHALL BE INSTALLED. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

14. SIDEWALKS ADJACENT TO CONSTRUCTION SITES SHALL BE MAINTAINED, FOR PUBLIC USE, BY THE CONTRACTOR. IN AREAS WHERE CONSTRUCTION IS TAKING PLACE NEXT TO THE SIDEWALK AND OVERHEAD HAZARDS ARE POSSIBLE, SITE IS RESPONSIBLE FOR INSTALLING AND MAINTAINING SIDEWALK PROTECTION.

15. NO TRUCK DELIVERIES PRIOR TO 8:00 A.M., AND AFTER 5:00 P.M., MONDAY THROUGH FRIDAY.

DISTURBED AREA ~ 123,000 SQUARE FEET (2.82 ACRES)

REVIEWED FOR CODE COMPLIANCE
01/12/2024

LEGEND

- PROPERTY BOUNDARY
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- STRAW WATTLE/SILT FENCE
- ROCK SOCK
- IP — WATTLE INLET PROTECTION
- RIPRAP OUTLET PROTECTION
- EROSION CONTROL BLANKET/MATTING
- VEHICLE TRACKING
- STAGING/STOCKPILE AREA
- FUEL CONTAINMENT AREA
- OVERLAND/SHEET FLOW ARROW
- CONCENTRATED FLOW ARROW

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER N. MAGA

FOUR POINTS SURVEYING ENGINEERING
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2	11/8/23	CSMP REVISIONS	

HOLIDAY INN EXPRESS & HOTEL B
CONSTRUCTION PLANS

INDIAN MEADOWS FIL. NO. 4
LOTS 1 AND 2
STEAMBOAT SPRINGS, CO 80487

HORIZONTAL SCALE
0 20' 40'
SCALE: 1" = 20'

CONTOUR INTERVAL = 1 FT

DATE: 11-17-2023
JOB #: 1448-005
DRAWN BY: AP/DSC/AAC
DESIGN BY: AP/DSC/AAC/WNM
REVIEW BY: FPSE

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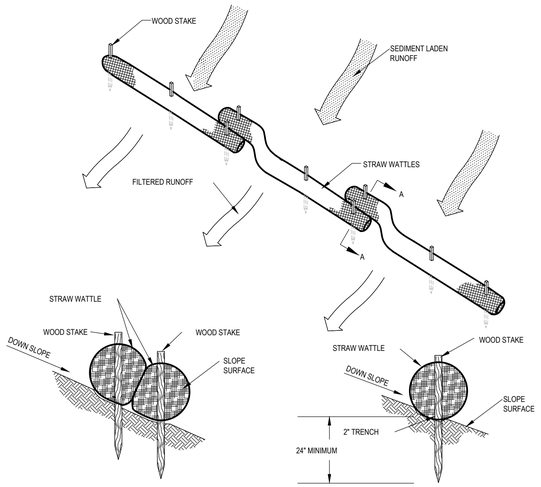
DRAWING: **STORMWATER MANAGEMENT PLAN**

SHEET NO.
C17

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 SWMP.DWG
PLOT DATE: 11/8/2023 12:36 PM BY: RICHIE SOROKA CTB: FPSE-BW.CTB

PLOT DATE: 11/8/2023 12:36 PM BY: RICHIE SORONA
CTB: FPSE-BW.CTB

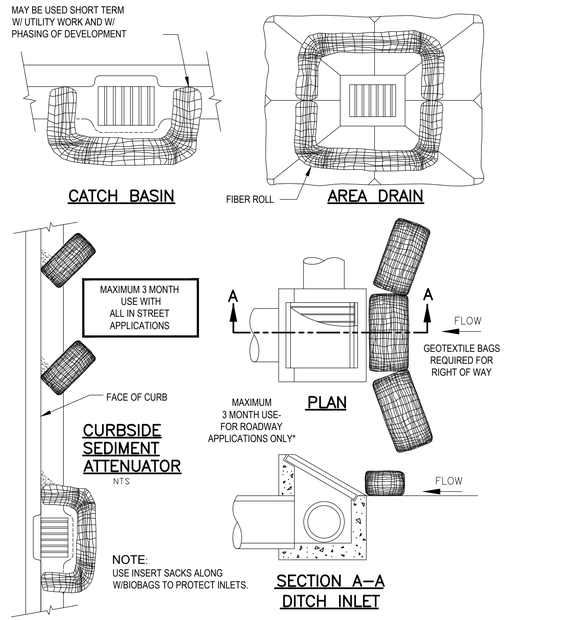


STRAW WATTLE
NOT TO SCALE

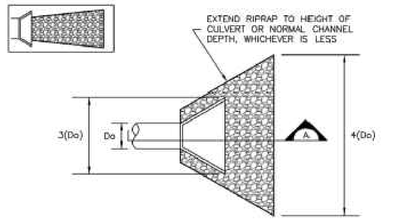
PURPOSE

TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.

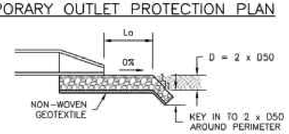
VEHICLE TRACKING CONTROL
NOT TO SCALE



FILTRATION BAGS, SOCKS, & ROLLS FOR TEMPORARY INLET PROTECTION
NOT TO SCALE



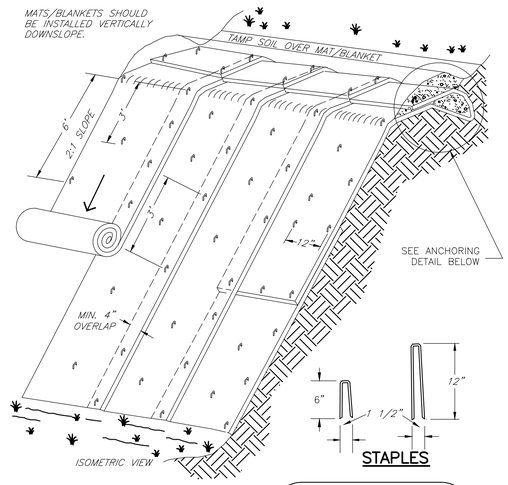
TEMPORARY OUTLET PROTECTION PLAN



SECTION A

TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE			
PIPE DIAMETER, Do (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5 5	5 10	4 6
12	5 10	10 13	4 6
18	10 20 30 40	10 16 23 26	6 9 12 16
24	30 40 50 60	16 26 26 30	9 9 12 16

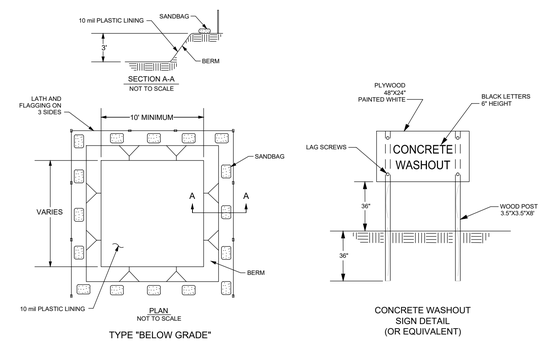
RIPRAP OUTLET PROTECTION
NOT TO SCALE



TYPICAL SLOPE SOIL STABLIZATION

ANCHORING DETAIL

EROSION CONTROL BLANKET
NOT TO SCALE



CONCRETE WASHOUT DETAILS
NOT TO SCALE

REVIEWED FOR CODE COMPLIANCE
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DRAWING: STORMWATER MANAGEMENT DETAILS

SHEET N0.
C18

DRAWING FILE: P:\1448-005 LOT 1 INDIAN MEADOWS F3 HOTELS\FPSE\CONSTRUCTION PLANS\1448-005 SWMP.DWG